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J. F. Watteau 1709
*Ensemble, au près de toy, sous ces Charmans Ombrages,
 Du temps mon cher Watteau, je crains peu les outrages;
 Trop heureux les Traits d'un fidèle Burin.*
*En multipliant tes Ouvrages,
 Instruisient l'Univers des sçavans hommages,
 Que j'envoie à ton Art divin.*
Tardieu Sculp.

Portrait of Watteau and Jullienne, engraved by N. H. Tardieu
 (After painting by Watteau, now lost).

Collection of Professor Alan Curtis, Berkeley, California.

The Viol in Baroque Paintings and Drawings

Mary Cyr

From the mode of playing the tromba marina to the reconstruction of historically authentic stage sets, iconographical research offers rich rewards to increase our knowledge of musical practice. Despite its potential, however, much of this fascinating subject still awaits exploration. Among the many areas which deserve further investigation, the history of musical instruments as portrayed in works of art would certainly yield much new information. For the viol, 17th- and 18th-century representations are particularly numerous, and from these we could document its rise and decline in popularity, how it was used in combination with other instruments and voices, and the manner in which it was played. A thorough study and compilation of existing works of art would certainly be a most welcome addition to the history of the instrument. The present discussion, however, serves merely as an introduction to this vast subject; by selecting seven art works—some famous, others less well-known—we may review both the results of recent research and a few of the problems as yet unsolved.

Artistically the finest of the numerous 17th-century representations of the viol are probably in the paintings of Vermeer. The large proportion of his paintings to include instruments—12 out of a total of 32—reflects the prominence of music-making in the Dutch household, and many such informal gatherings may also be seen in the works of his contemporaries, Terborch, Pieter de Hooch, and Metsu. The viol was often represented, as were the virginal with keyboard on the right (*muselaar*), the theorbo with four pairs of extra bass strings, the five-course guitar, the cittern, and—most often in tavern scenes—the violin and recorder. The bass viol was an important addition to the Dutch musical household, where it often hung on a wall or lay near the virginal when not in use. The significance of the musical instruments in Vermeer's works, and their part in the world of illusion and symbolism he painted, has been the subject of an enlightening study by A. P. de Mirimonde.¹ Although the bass viol is represented in a total of five of Vermeer's

1. A. P. de Mirimonde, "Les sujets musicaux chez Vermeer de Delft," in *Gazette des beaux arts*, S. 6, vol. 57 (1961), 29-52.

paintings, it is never shown being played. Perhaps, as Louis Gillet has evocatively suggested,² the viol represented the painter's own avocation, reluctantly abandoned for his work. Its presence, at least, like other objects and instruments in the paintings, invited mental associations which revealed the theme the painter wished to portray. One manner in which Vermeer and others alluded to the theme of a painting was to include another painting which could translate the artist's intentions. In Vermeer's *Lady Seated at a Virginal* (PLATE I), the well-dressed young lady seems to give a reticent glance toward an unknown intruder. Her thoughts are transferred in part through the large painting on the wall behind her—Theodore van Baburen's *The Go-between*, a scene of seduction by music.³ The painting on the lid of the instrument evokes another aspect of the theme: a delightful walk in the country. A handsome six-string bass viol, with its bow passed between the strings, lies against the side of the marbled instrument. Perhaps it is a symbol of an absent player—one whom she expects to arrive.

Metsu's *Lady Playing the Viola da Gamba* (PLATE II) treats a similar subject with a touch of irony. Metsu's young lady, dressed even more elegantly than Vermeer's, is seated in her bedroom playing the viol. The music book on the table is open to a tenor part of an instrumental composition. Her eyes, and her thoughts, are elsewhere; she gazes toward the bed, and a candle stands nearby in preparation for the evening. A little dog, long a symbol for lewd behavior, stands upright as she plays.

The technique of illusion and symbolism may also be observed in many 17th-century Dutch and French paintings of still-life subjects. The painting of Pieter Claesz, for example, *Nature morte aux instruments de musique* (1623) in the *Louvre*,⁴ represents an allegory of the senses. Numerous instruments of different families (plucked, bowed, and wind) depict the sense of *hearing*. Other objects, collected together on the table, relate symbolic meanings as well: the pipe characterizes the sense of *smell*, the wine and food that of *taste*, and the mirror *sight*. The turtle was long held to be a symbol of *touch* or

2. Louis Gillet, *La Peinture en Europe au XVII^e siècle*, p. 267.

3. Vermeer used Van Baburen's painting also in another painting with a musical subject, *The Little Concert*, now in the *Isabella Stewart Gardner Museum*. The Baburen painting itself now resides close by in the *Boston Museum of Fine Arts*.

4. Reproduced in Marc Pincherle, *An Illustrated History of Music* (N. Y., c.1959), p. 83.

feeling.⁵ In a more formal presentation (PLATE III), Jean Garnier surrounded a medallion portrait of Louis XIV with numerous symbols of his achievements and the flourishing of arts and letters during his reign: attributes of war and conquest, learning, and music, represented by several instruments, including a cornemuse, violin, guitar, and two viols (treble and bass).

The still-life of the early 18th century seems to turn another direction. With J. B. Oudry (1686-1755), who reached his greatest success and vogue about 1730, and others of his generation, musical instruments as still-life subjects are chosen for their beauty rather than for a symbolic intent. Although his portrayals of nature and wildlife account for his most well-known works, he also occasionally painted musical subjects. He enjoyed music himself and is known to have played the guitar. He is represented with it on the first page of his collection of portraits, and when his wife engraved his portrait she placed a guitar near his palate. Perhaps it was for some unknown amateur player that he painted the *Basse et cahier de musique* (1754) in the *Louvre*, whose subject is a fine seven-string bass viol. In the same tradition of portraying instruments for their beauty is a still-life in the *Musée de Blois* (PLATE IV), *Instruments de musique*, which includes several specimens: a tambour, a one-keyed wooden flute, a vielle, and a seven-string bass viol. The latter two are particularly handsome, with their scrolls carved in the shape of a human head, double rows of purfling on the viol and decorative inlay on the edges of the vielle with ivory trim. The anonymous painting has been attributed to Roland de la Porte (1725-93), but the instruments portrayed, all popular during the early part of the century, might suggest an earlier date for the painting, closer to the generation of Oudry.

A study of other works of art in which a seven-string viol is represented would prove a valuable addition to the meagre amount of existing documentation of its use. From Jean Rousseau we know that Ste-Colombe employed the low (A) string,⁶ and his surviving compositions employ it.⁷ During the first half of the 18th century it reached the height of its popularity with the generation of French

5. Guy de Tervarent, *Attributs et symboles dans l'art profane, 1400-1600* (Geneva, 1958), p. 383.

6. Jean Rousseau, *Traité de la viole* (Paris, 1687), p. 24.

7. His compositions have been edited by Paul Hooreman, *Concerts à deux violes esgales du Sieur de Sainte-Colombe* (Paris, 1973).

virtuosi including Marais, Forqueray, and Caix d'Hervelois. Of its use outside of France, very little is known, but new information may eventually come from the numerous works of art in which it appears. The earliest representation of a seven-string viol is Domenico ("Domenichino") Zampieri's fine *Sainte Cécile* (PLATE V).⁸ The patroness of music, St. Celilia, plays a large viol with a book of music held open before her. On the table below, where her viol rests, a treble recorder lies beside another book which is closed. The characteristics of her instrument are exceptionally well-represented: the extremely thick neck, seven strings, a carved rose, and the unusual and decorative shape of its body and sound holes. To the accompaniment of the viol, she appears to be singing. Indeed, the music before her shows a sacred text with a florid vocal line which can be read (Ex. 1).

Example 1. Musical fragment in Domenichino's *Ste. Cécile* (Paris, Musée du Louvre).



In addition to supplying details concerning the history of the viol and the changes it underwent, paintings of performers form, of course, a rich source of documentation for many aspects of the manner of playing as well as for the history of the instrument itself. The precision with which Watteau, for instance, captured fine details of position and movement in his studies of hands and facial expressions make his numerous drawings and paintings a fruitful field of study. Much can be learned from the manner in which the bow is held, for example, which seems highly characteristic with Watteau. That Watteau regarded music highly is apparent from his self-portrait (FRONTISPIECE) in which Watteau paints in a

8. In a recent study, Mirimonde traces the various forms in which Saint Cecilia has been honored by artists, *Sainte-Cécile ou les métamorphoses d'un thème musical* (Geneva, 1974).

pleasant, wooded surrounding while his friend and patron, Jean de Jullienne, sits near him playing the viol.⁹

Finally, a less well-known drawing (PLATE VI) in black pencil and red chalk by Watteau's contemporary, Jacques-André Portail, permits another opportunity to study the manner of holding the instrument, similar to that described by Danoville in his *L'art de toucher le dessus et basse de viole*.¹⁰ The performer is shown from the side, with his left hand posed on the neck of his bass viol, while playing. One of several drawings of musicians by Portail, it perhaps represents a musical performance at court, where the artist served as royal draftsman from 1740.

The art works selected here represent only a few of the many iconographical sources which may yield further information concerning the viol and its performance practice. Future studies could treat a particular feature of the construction of the instrument as shown within a given period. The manner of holding the viol, and characteristics of the hand position would also prove a valuable field of study and comparison. Studies by Mirimonde and others have begun the task of interpreting these works, and future investigations will perhaps illuminate many of the remaining mysteries in the history of the viol and its music.

9. Himself a painter and engraver, Jullienne was a collector of Watteau's works. After Watteau's death, he prepared catalogue of his works, and this engraving served as frontispiece to the collection. Of Jullienne's musical abilities, little is known; no instruments were mentioned in the inventory of his possessions after his death. See Emile Dacier and Albert Vuaflart, *Jean de Jullienne et les graveurs de Watteau au XVIII^e Siècle* (Paris, 1929), pp. 107-110 and 201-252.

10. Danoville, *L'art de toucher le dessus et basse de viole* (Paris, 1687), pp. 8-13.



Plate I. Vermeer, *Lady Seated at a Virginal*, oil painting.
Reproduced by courtesy of the Trustees, *The National Gallery*, London.



Plate II. Gabriel Metsu, *Lady Playing the Viola da Gamba*, oil painting.
De Young Memorial Museum, San Francisco.



Plate III. Jean Garnier, *Allégorie en l'honneur de Louis XIV*, oil painting.
Musée de Versailles.

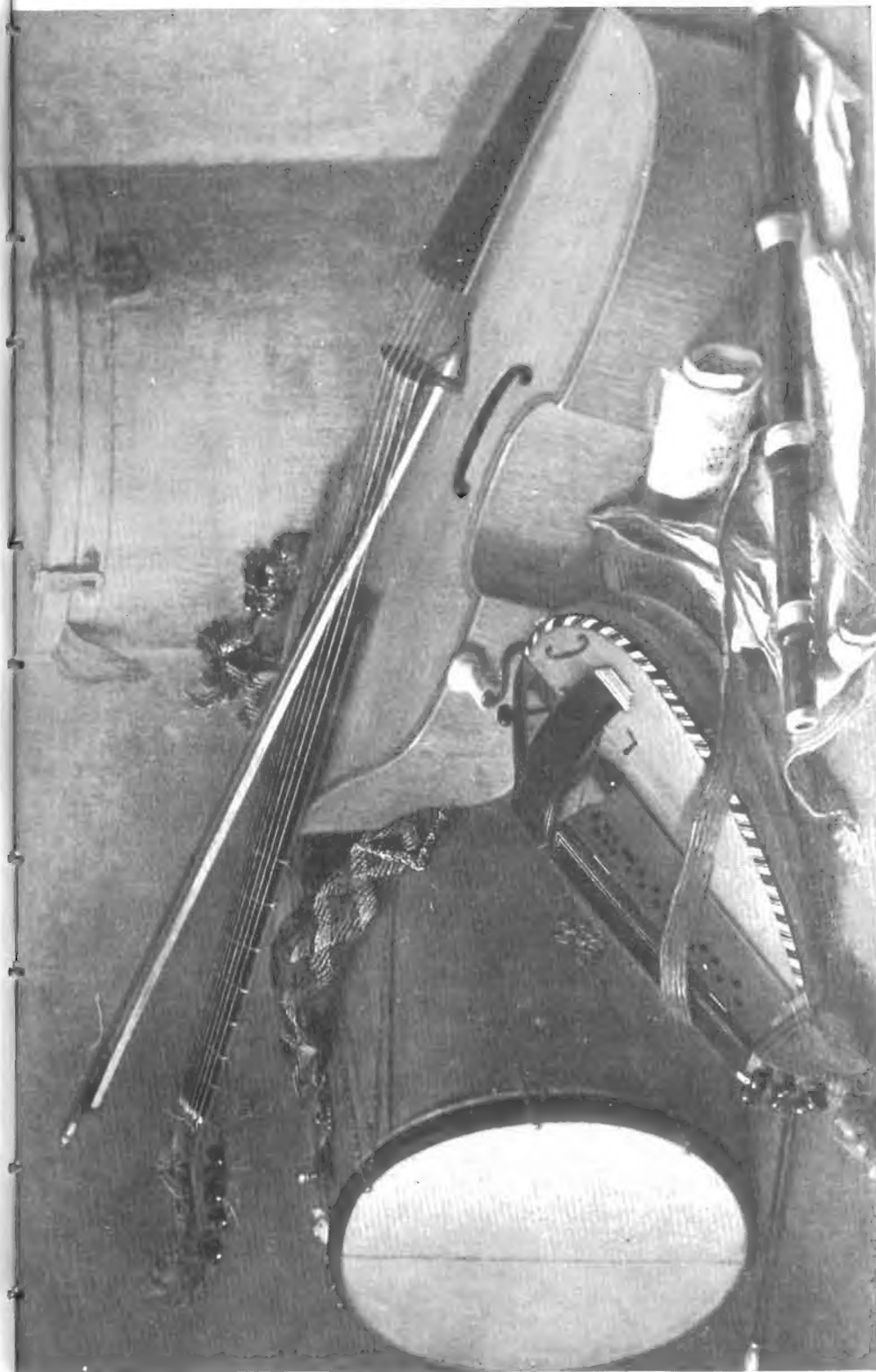


Plate IV. Anon., *Instruments de musique*, oil painting.
Musée de Blois. (Photo. Chateau de Blois.)



Plate V. Domenico ("Domenichino") Zampieri, *Sainte Cécile*, oil painting.
Paris, *Musée du Louvre*.



Plate VI. Jacques-André Portail, *Viola da Gamba Player*, pencil and chalk drawing.
Print room, *Rijksmuseum*, Amsterdam.

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Hubert Le Blanc's Defense de la viole^a

(continuation)

Translation by Barbara Garvey Jackson

Le Blanc's treatise was divided into three parts. In **Part I**, *Dissertation on Pièces and Sonatas*, he deals with the *pièces* of the viol-players and the Italian violin sonatas, concluding that the pieces are musical poesie, which follow an affected taste after the time of the divine Marais, and that the sonatas are musical prose, using a natural style which is more varied and more moving. He also contrasts the sound of Italian violin-playing and viol-playing in the manner of Marais, indicating that the sonata style is marked by continuous "pliable sound", whereas the Marais style is quite varied, using "raised bow strokes, all in the air", which sound "like clock-chimes", so that after making a bow-stroke "a place was left for the string to vibrate."

Part II, *Whether the Preference Should be For the Viola da Gamba or the Violin. The Strategem of the Latter to Obtain it*, is a fantastic debate between the personifications of the Violin and the Viola da Gamba, in which the Violoncello and Harpsichord play supporting roles. In the first portion of this translation^b the Violin proposes to overturn the kingdom of the Viola da Gamba, particularly through the playing of Leclair. The Viola da Gamba finds her champions in retirement; Forqueray who has retired to Mantes, finds that he has left no students to carry on the cause, and that he is unable to confront the Violin to advantage on the vast field of battle which it has chosen. The stratagem of the Violin is to perform in a large hall which minimizes its faults and which is too large for the Viol to sound well. As the first portion of my translation ended, the Viol had made the point that viol-playing is like a small statue or carnelian carving, whose subtleties and fine qualities must be seen at close range to be appreciated, but that the violin is like a large coarse piece of sculpture which is not charming at close range but has a good effect when seen at a distance.

As the present section of the translation begins, the Violin is angered that the Ladies still give their approval to the Viol. Music

^a Hubert Le Blanc, *Défense de la basse de viole contre les entreprises du violon et les prétentions du violoncel* (Amsterdam: Pierre Mortier, 1740).

^b See *Journal of the Viola da Gamba Society of America*, X (1973), pp. 11-26, 69-80.

descends from Olympus to describe the essential characteristics of various musical sounds. There is considerable discussion about the various qualities of bells. A judgement is finally rendered that the Viol is appropriate for private music-making and the Violin for public concerts. In the first section of the controversy, incidentally, Le Blanc had noted with great distress the decline of the amateur and the rise of increasing professionalism.

Just as the issue seems to be decided Somis and Geminiani perform and the Lady judges are completely entranced. When their passion for the playing of the foreign artists reaches its peak, however, they begin to realize that they are bored and that the enchanting ornamentation is too repetitious. Blavet's flute playing restores their taste (incidentally he plays a *violin* sonata), and the section concludes with remarks about Royal preferences for the Viol.

Part III, Rules for Making Everything Playable on the Viol and the Pardessus de Viole. Precautions to Take for the Holding of the Instrument and the Method of Tuning It, is Le Blanc's solution to some of the problems he has posed. He believes that the decline in new composition for the viol is a serious problem and he proposes to remedy it by playing violin sonatas on the viol. Thus the sonata becomes the realm of the finest, most elegant and intimate instrument. He believes that the current generation of viol players teach by rote and mystery instead of presenting a logical system and describes a fingering system based on placing the fingers simultaneously on frets outlining the chord on which a passage is based, minimizing the amount of shifting by playing more within positions, and shifting only at points where there is a natural articulation between phrases. He refers to "modern bow-strokes" as opposed to the old bow-strokes, but unfortunately he gives no description of the two techniques. He also considers tuning problems and the question of fretted versus unfretted instruments, deciding, naturally, in favor of the fretted ones. He concludes his little treatise by remarking that he certainly does not speak ill of cellists (whom he feels must go through prodigious labors to play at all) but only wishes to make clear that the instrument certainly is not amiable!

He includes a short index, which is not included either in the *Revue musicale* reprint or the German translation^c. It is a very incomplete index, often more concerned with citing his allusions than with the central points of his treatise, but it does identify the Le

Blanc he casually lists among the virtuosi in Part I as a viol-player who can play in the positions—that is, using his fingering system—which presumably would be Le Blanc himself!^d

The advice and assistance of Drs. Kern Jackson and Rosa Bartsch are gratefully acknowledged.

Resentment overwhelmed the Violin at the approval the Ladies had given the Viol, and he resorted to insulting the Viola da Gamba in these offensive terms: "Madame Wig-box - oh, you of such ostentatious display and little effect! - you require as much space in a choir loft for a trial of skill as a *porte-aumuche* [a box for carrying the heraldic furs worn on the arms of canons and cantors going to celebrate the Office] for drawing up a wristband. And there is the same proportion between the size of your belly and the sound which comes out of it as that between the mountain in the throes of childbirth and the mouse of which she is delivered. From mine, on the other hand, which has properties the opposite of yours, there comes forth a prodigious sound from an instrument of small size, and in order to play, I need no more space than it takes for a cadet at his campfire to find a place for his elbows and knees."

"Among the animals," replied the Viol, "the wolf carries the lamb away to the heart of the forest and then devours him, without any further formality. The lion who has to choose between four parts just takes all four. What great moderation! And among men, there is only too much need for a decisive manner! These bad examples have corrupted your judgement. Not only do you not in the least recognize Caesar as your superior, but in Pompey you do not want to tolerate an equal at all. You have such a desire to dominate - even worse than that of Herod, who feared being a King without people. You want to rule alone, without subjects, having used the triumphal proscriptions against the Lute, the Guitar, and the Harp, which, out of ridicule, you have described through Lully's mouth as a gathering of flies. If attention is paid to your voracity, your huge appetite will certainly include the Viola da Gamba and the Pardessus de Viole in the decree of suppression. But you try in vain: the strongest reason will not be the best in a symphony nor will insincerity be allowed in music (so much the worse for the Violoncello). Yes, you, Violin, in spite of all the advantages which you have of a virile sound, nevertheless you should not efface in the least the Viola da Gamba's charms of womanly Harmony."

^dThis Le Blanc was incorrectly identified as a violinist in the first portion of this translation. *Op. cit.*, p. 16.

^c*Op. cit.*, p. 11, 12.

The Lords and Ladies were surprised by this expression of the Viol's opinion. They went back to the approaching concert to settle the dispute there and to determine what services they could draw from the Viola da Gamba. Without offending the merit of the Violin, they resolved to render justice to that of the Viol, depending (as a necessary condition) upon place and circumstance, just as a picture must be put in the right light to be judged properly.⁶³

Music descended from Olympus because of the importance of the points to be debated. There was the question of temperaments to be considered for neither the Violin nor the Viol was suitable for championing the cause to which each was partial. Music presented herself in the image of Mlle Certain,⁶⁴ and, the assemblage being complete, she spoke to it in these terms:

"Since I have promised to make a clarification [of the question], I must first make an observation about the nature of the sound of the various musical instruments.

"There are golden sounds, silver sounds, and bronze sounds. Great protocol is required to see that they succeed each other properly.

"The Lute is the prince of all Dorian Harmony; after one has heard the golden sound which issues from it, the change to other instruments is repugnant to the ear and causes a grimace like that of Thersites when he received a blow of the scepter from Ulysses on his hump.⁶⁵

"When one follows the sound of the Lute with that of the Harpsichord it is like turning from the wine of Volnai to present the wine of Nolay (which is condemned [even] for serving in stews by a decree of Parlement) to be drunk from copper cups.⁶⁶ To go from the divine sweetness of gut strings, stretched over a deep chamber, to the

⁶³See Part II, in the first half of this translation, *Journal of the Viola da Gamba Society*, X (1973), p. 79, where a similar analogy to sculpture is made.

⁶⁴Marie Françoise Certain (1662-1711) was a French harpsichordist who had been a student of Lully, and whose reputation was that of a virtuoso with a spirited style of interpretation.

⁶⁵Thersites was an ugly, foul-mouthed Greek who railed at Agamemnon (see *Iliad*) until he was beaten into silence by Ulysses. Bow-legged, lame, and deformed, he was described by Homer as the ugliest Greek at Troy; he in turn accused Agamemnon of greed and Achilles of cowardice.

⁶⁶The wine of Volnai is one of the great Burgundies; nothing can be found concerning the decree of Parlement with regard to the wine of Nolay but the image is evidently intended to convey as astringent or sour taste.

clashing squabble and grape-shot sound of iron and brass strings has the same effect as [drinking] absinthe. All the 'ha's' of Gallus's exclamations against Lycoris⁶⁷ scarcely would suffice to render the sour thinness of the touch of the Raven's quill⁶⁸ when compared with the softness of the plucking of a Lady's fingers, which produces round and charming sounds on the Lute and makes brilliant and delicate (pearly) cadences which are like the *tock-tock* of pearls spilling out of the Duchess Grognon's jewel-chests.⁶⁹

"The Violin has a rounded silver sound.

"The Viol has a partly rounded sound, sharp, yet not sour, which nips in comparison with the instruments of Cremona. One should not play the Viol with or immediately after [the Violin], any more than you should play that one after the Lute. In return, the Viol has revenge on the Harpsichord; though it is true that when she calls him Bundle of Keys, he responds well enough with Madame the Steam-boiler.

"But the difficulty of the question does not lie in the nature of the sound, for though once only the Lute was played, nevertheless it has now been abandoned. It is thus necessary to base the rationale for settling the question on something else."

She [Music] draws upon the important distinction to be made between masculine Harmony, harsh close up but round and mellow at a distance, and resulting from [sounding] bodies which are hard to set in motion, without the vibration of strings or the trembling of sections, from which resonance results after a stroke has been given. This Harmony draws on that of the voice.

And in feminine, half-round Harmonies, like the file which bears this name, having less voice but being all resonance, the agitation of the pliant parts lasts for a long time.

Some examples are necessary to clarify this point.

The transverse Flute has masculine Harmony, because it is

⁶⁷Gallus (a patron of Virgil) was in love with Lycoris (whose real name was Cytheris). She was a beautiful actress of Mimes who forsook Gallus for a rival (and who captivated Anthony and Brutus as well!). The story of Gallus' passion for Lycoris is celebrated in Virgil's *Tenth Eclogue*.

⁶⁸Harpsichord plectrum.

⁶⁹Le Blanc considers this quality of sound very desirable. In his description of Marais's playing he compares the sound to that of plucking on the lute or guitar, with the words *tic-toc*. The words *perlée* (pearly, brilliant and delicate) and *petillant* (crackling, sparkling) clearly represent qualities of sound to be sought after in his mind. See Part I of this translation in *JVGS*, X (1973), p. 21.

harsh at close range. It is absolutely not agreeable to be right up close to the embouchure but it has a round and mellow sound when one is at a distance from it.

On the other hand, the recorder, as played by M. Cosiagno of Anvers, is of feminine Harmony, tender and sonorous up close; it seems to have a resonance like the voice of Mlle Quenel, so celebrated at Lille in Flanders, while the voice of a choir-boy and of Patchini⁷⁰—in truth rounder, but also harsher—are blurred with resonance. They no longer suggest those unequal bits of steel whose pitches are ruled by the length of the ingots, which are played like the Dulcimer.⁷¹ But they give a place for a very appropriate remark to render the idea being advanced here. These so-called Regals cause a tinkling so destitute of resonance that they would have to be beat on unmercifully for any continuity of sound and would actually be punishment for an ear which was a lover of the trembling or vibrations of sonorous bodies, if it were condemned to listen to it for a long time.

On the other hand, the clock-chimes of Germany, England, or Blois would be a solace to them in pain and an increase in all their pleasures. A carillon like that would make more of the hours heard voluptuously, but those bits of steel - scarcely minutes! By the same logic, people of distinction set their hearts on playing much longer on the Viol than on the Violin. It is a fact that one plays [the Viol] until late in the night while the Ladies play their Harpsichords.⁷² The Viol is thus a more gratifying instrument than the Violin.

The Viol and the Harpsichord have feminine Harmony and are so related in the proportions of the thickness of the sound-board that they have delicate and fine strings; compared with the Violin and Bass of Cremona [that is, the cello] like the bells of the Abbey of St. Germain des Prés of Paris compared with the clock-bell of the Palais de Paris, or with the bell of St. André of Grenoble of Porte-Joie of Besançon (which have voices like La Desmâtin - continuous, without one's hearing the "stroke of battle"; they sound with elegance, just

⁷⁰Antonio Pacini appeared after 1707 at the King's music and died at Versailles in 1745. It would appear from this passage that he was a castrato.

⁷¹The Glockenspiel described here was used in military bands in the early eighteenth century and appeared in Handel's oratorio *Saul* in 1738. Le Blanc refers to the instrument in this passage as a "so-called Regal", but this is by no means the normal use of the term.

⁷²For an *abbé* Le Blanc seems to put great importance on the time the viol allows one to spend with lady harpsichord players!

as Mlle Le More forms sounds without articulating them), or with the great bell of Béfroï of Ghent. The voice of that great bell is equal to that of the contra-bass called "bull-dog." It magnifies the stroke given, and only appears more mellow at a distance, like that of the great Tifène, which Lully enlisted under the banner of his music. Lully was carried away, enchanted, entranced to hear it, in order to compare its unequalled melody with the horses which he conducted, who never advanced at all.⁷³ Tifène, the delight of Louis XIV (who would have been ruined by wine, if the grand monarch had not been indestructible); why the great machine of Marly⁷⁴ would have been necessary to fill up the great channel of a throat of such circumference!

The bells of the Abbey of St. Germain have a vibration so charming that their Majesties, their Serenities and their Excellencies get up at night in order to hear them.⁷⁵ Lully took his lodging nearby because they had on him the effect of an *adducite mihi psaltem*.⁷⁶ The fall of the tone which results when the "battle-stroke" is given is a fourth. It happens that the lesser bell at St. Germain makes a diminished fifth at most in its sound, and that one makes a third with its sister - thus there is the most perfect carillon.

This *fourth* is associated with bells of feminine Harmony - Emmanuelle of Lille in Flanders and the great bell of Auxerre.

The thick bells, which have much material in them, ordinarily give a minor third as their falling tone.

Sir Violin, fearing that the tenderness of Harmony so agreeable in the bells of the Abbey would give an impression in the Viol's favor (for it resembled them much more than he), then made this curious observation - that the bells in which the metal speaks most easily, and consequently was the most effectively used, at Esimi were like him, the Violin. It appears that this is the proportion which is in harmony with the density of the atmosphere, just as the caliber of the 24 artillery pieces is appropriate to the outlay of powder employed. The incomparable bell of Saint-Benigne at Dijon, weighing 10,000, with a thickness of half-a-foot to a diameter of five,

⁷³What a way to refer to Lully's famous orchestra!

⁷⁴Le Blanc's irreverent comment on the drinking capacity of the grand monarch is astonishing. The machine of Marly refers to the waterworks at Versailles.

⁷⁵This is known to have been a particular pleasure (and one of the more innocent ones) of the Duke of Orleans.

⁷⁶The Intonation of a Psalm.

had been the richest Esimi of the realm, making much better effect than the two heavier ones which succeeded it.

Lady Viol responded that that *loud voice*, very much to be sought for in a clock which was for informing people, would be very bad in an instrument which a gentleman played to amuse himself and not to divert others. She said that the sound of the Viola da Gamba, drawing on the tone of an ambassador's voice, which is not loud (and even a little nasal) would be much more suitable. She said that the Monarchs and Princes of France had thus made a wholesome judgement in favor of the Viol, giving it a place in their cabinet, in the chamber closest to their august persons, while they had left the Violin out in the vestibule or relegated it to the staircase (that theater of the loves of cats, from which Mrs. Mitis let sound the charming tones of their music), just like the Violin, discreet about its place and fearful of its sharp sound, which is as abhorrent close up as a shrill tinkling without resonance, only suitable to spare the curious the pain of listening attentively, but apt to produce the sound of the voice of an actor who even deafens himself.

"It would annoy me," responded the Violin, "to diminish the sound as much as the Viol can, and consequently to be an instrument of such nature that it prides itself on being Madame Honesta, with the voice of a Carmelite.⁷⁷ I can bear the test of being heard close up, and can see myself in the hands of a gentleman."

"You step out of character," replied the Viol, "when you most affect the diminishing of sounds until they are almost imperceptible. The wolf does not imitate the sound of a kid just by borrowing a sanctimonious voice. For indeed you require greater strength than that of the embraces of Hercules for the bow to catch the string and prevent it from whistling, as happened when the file does not take hold of the iron. If one knew the awful tension you require (which you take care to disguise) one would be horrified to pick you up. Like Encelades,⁷⁸ you pile up a multitude of notes on the French taste to stifle it and to make the tenderness of the sound insipid by the multiplicity of notes. Somis made thirty such notes - not resonant but like a flageolet - when Marais senior and Forcrois senior would have played only one note. They applied themselves to

⁷⁷Carmelite orders observe a rule of silence, living in seclusion and meeting only for worship, using their voices only for the singing and speaking in worship services.

⁷⁸See Part I, *JVGS*, X (1973), p. 24 for Le Blanc's previous comparison of the violin to Enceladus.

making it sonorous (like the great bell of St. Germain) playing "in the air" as they required,⁷⁹ that is to say, having made the bow-stroke they left a place for the vibration of the string. The violin with its sound dragged out and not lifted up, is unable to be tender with chords in the sonata, or stamps its boots brutally in concerts to transport the opposites which it seduces in its whirlwind, and to extort, to steal approval rather than to attract it.⁸⁰ With all that, what is this imitation of the Flageolet by the Violin in the uppermost regions or even beyond the heavens, if not sounds without resonance, whose tinyness does not correspond at all to the roundness of the tones of the lower positions. On the other hand, the Viol, when it goes up like LeCler (*sic itur ad Astra*)⁸¹ loses none of its charm: it is delightful even beyond the frets, and its tones are perfectly matched, being sonorous on that end of the fingerboard while the Violin is like a Flageolet grafted onto a Flute (so much the worse if it is the sound of a Flageolet which follows that of a Violin). It could not fail to have a bad effect. "Ah!" said the Viola da Gamba, "if only your sounds were all of the same type! Prolong just one type of sound or do not vaunt yourself up so much."⁸²

"The Viol is thus more appropriate than the Violin for the chamber since on the Violin one can only produce sounds which are too poor in Harmony, like a flageolet sewn to a *Trompette marine*.

"Far from having these two different sorts of sound in the Violin make up for each other, one just goes from the frying pan to the fire. There is more unity in character required for sweetness in the affairs of life; the evenness of the Viol is more suitable for a gentleman's use, for he finds there an amiable link with society, be it that a Lady sings, plays the Pardessus de Viole, or plays the bass [i.e., continuo] on the harpsichord."

⁷⁹See Part I, *JVGS*, X (1973), p. 21 for earlier mention of Marais having used "raised bow-strokes, all in the air, which resemble so much the plucking of the lute or the guitar."

⁸⁰In the German edition, the editor remarks here that Danoville speaks of the Gamba as "the soul of the concerts, since through its mildness it makes the tone of the metal strings of the Cembalo sweet and binds together the diverse sounds of other continuo instruments, such as the Clavecin, Theorbo, Lute, etc."

⁸¹So thus to the Stars.

⁸²Le Blanc is not speaking here of harmonics, for which the term *flageolet tone* is sometimes used, but merely referring to what he regards as the excessively shrill upper register of normal stopped notes on the instrument.

The Violin, mustering its forces, fired its bow-gun,⁸³ stating as a certain and assured maxim that the decay of the sound of the timbres of a clock and of the great bells of little thickness gives vent to a sort of fume. Emmanuelle de Lille in Flanders has neither mellowness nor richness at a distance; she who has so beautiful a voice close-up depends in the distance on the bell of Méln. The Viol and the Harpsichord are in exactly the same situation. The sound of the Viol, heard from afar or in a big space filled with people and their clothes, is like a vapour of the spirit of wine which one throws into the air and from which one recovers nothing, while the Bass of Cremona, like the bell of Ghent, the Violin and the transverse Flute, are like the bells above in Esimi, transmitting in the distance a mellow and rich sound, like the damask of old workmanship from Lyons compared with the satin of today.

The Viol was obliged to admit the small effect of tender harmony at a distance, but that removes none of its merit up close, the more so since it is the principle of that harmony that it consists in the easy stirring of the parts of sonorous bodies which are set in motion by a light touch, from which there results at close hand a caressing of the ear by the quivering which causes the resonance. Such is the attraction of the tender harmony, while the coarseness of touch which the hard harmony requires is disgusting close by; one can never clean oneself of it.

What do you conclude from this if not that the Violin is the fate of a great artist, who gives himself pain without respite, so that he suffers the liver of Prometheus!⁸⁴

The lot of the Violoncello is that of an ex-choir boy, born to the purple [only] by tedious work. The number of people who played them previously was numerous, or rather they found there their advantage.⁸⁵

The Viol will remain the lot of a gentleman who knows how to prevent boredom, to provide pleasure for himself (but not in order to give it to others), good for mixing his pleasures with those of an amiable Lady who is playing the Harpsichord admirably.

⁸³A cannon in the bow of the ship, used for pursuit. The pun in the English is accidental; there is no pun in the French original.

⁸⁴Prometheus, the Titan who gave man fire, stolen from the heavens, was punished by Zeus by being bound to Mt. Caucasus where a vulture ate his liver every day. His liver was constantly renewed so that the torment was endless.

⁸⁵That is, they were played only in orchestras, for which they were suitable.

But who is it who will draw the inference from this that he must abolish the Viol because it is not an orchestral instrument, if not the provincial sheep-like brutes who flock to do among themselves what they have heard some source say in Paris, letting fashion decide on musical instruments as on the style of clothes. But since all is playable on the Viol, and that by a knowledge acquired by the gentleman once and for all, how is it not preferable to instruments which require an enslaving art, such as the cello on which falsity has to be fought to an appalling degree, falsities reborn with each step one goes up, like the heads of the Hydra.⁸⁶ The defective vibration in the strings, veritable ship-cables, call for fingers with boots on to make the player master of them.⁸⁷

Always having to conquer the resistance of the short, heavy, extremely tense strings of the violin causes a continual struggle to tame their harshness and requires ironclad fingers. For this, helpful nature produces a little hoof [or, a little shoe] at the tip of the nail (like that of beasts of burden or of the carriage).

The high pitch and brilliant sound of the Violin do not at all show anyone of either quality (of breeding) or a noble education. A fine thing it would have been if Achilles, when surprised by the ambassadors of Agamemnon, was playing the Violin, making a spectacle of himself to the neighborhood, making a belfrey of the room, and putting himself in the position of saying to himself, "Ah! If only I were a half-league away from myself in order to hear myself with pleasure!" Instead Achilles appeared in a decent state, Lyre in hand—like a Viol—with which one can sing the eulogies of heroes, and not with the Violin whose *loud voice* presumes to dominate so strongly that it would blot out those whose memory he had celebrated.

Achilles did not give up the Lyre brusquely but made two turns around the room still holding it. He was, incidentally, to appear on a

⁸⁶Le Blanc is referring here to intonation problems on an unfretted instrument, though he may also refer to false strings which he considers more common on an instrument of higher tension, as well as of thicker strings.

⁸⁷The German translation simply uses the term "calloused fingers", but Le Blanc clearly wants to make a comparison with horses' hooves and is very explicit in the terms he chooses.

similar occasion neither idle, nor bored, not self-conscious, but not enjoying himself and still less entertaining others, giving himself to them to judge at a distance!

Therefore, the Viol, which has the qualities of the Lyre so well—and even more the best ones—is more appropriate for a gentleman than the Violin.

The Ladies, whom it behooved the most to hear what was seemly and to judge what is and what is not, gave the palm to this comparison. They laughed at the idea of Achilles's room if he had converted it into a belfrey by playing the violin. "Belfreys, at the time of Achilles," they said. "The thought is charming, like the idea of Titian having put rosaries at the side of the pilgrims of Emmaus.⁸⁸ But this picture was well made, it made the point; and both your points (which were quite correct) ought to make all of the reasons appreciated, even though uttered humourously (as Cato spoke of Cicero on the subject of witty remarks which escaped him on the very point of engaging in battle with Caesar—'We have a droll consul!') In effect, no one can decide for himself or for others whether he hears a thin voice like a carillon; thus the [argument of] Violin, which wrongs the Viol in the same way, proves nothing more against her."

The judgement of the Ladies thus was that the Viol would be reestablished in all its rights in private music-making and that the public audience was abandoned to the Violin.

The Violin was disposed to be dissatisfied by this judgement which the Ladies had rendered, although it was so equitable. He was jealous that the Viol was more appropriate for their service than he to just that extent that she played the bass when the Ladies sang and the upper part when they played the Harpsichord. [But] the *Cantata of Orphée* is charming played with two violins; the place,

⁸⁸*Christ at Emmaus*, painted by Titian around 1530. In 1627 it was sold to Charles I of England and eventually passed into the hands of Louis XIV. It has remained in the Louvre ever since and so was familiar to Le Blanc. There is a rosary at the side of one disciple, and all of the figures are in Renaissance dress.

dreaded monarch, that is the final justice.⁸⁹ Alpheus and Arethus enchant.⁹⁰

Thus there were set up two champions—one from beyond the Alps, and the other from beyond the sea, who were transcendant.⁹¹ They were elevated as the *non plus ultra* of those who could make music with the fingers and the bow. They were at the head of all the virtuosi of the habitable world. Their coming was made known like that of hornets and the posters announced a concert where their musical eloquence should inveigh against us French, like that of Demosthenes against Aeschines.⁹²

The Ladies, not fearing that the revision of their previous judgement might turn out badly, were strongly for supporting the concert. They began by establishing that it was not just to decide about the merit of the Violin (which flourished through the work of

⁸⁹This may refer to the *Orfée* of Clerambault which uses flute and solo violin and could easily be played on two violins. There is supposed to be an *Orphée* by Rameau (1721) which had independent parts for both violin and viol in the same air, but the only extant *Orfée* by this composer has one treble part (presumably for violin), solo voice, and continuo. See Vollen, G. E. *The French Cantata: A Survey and Thematic Catalog*, North Texas State University, Ph.D., 1970, University Microfilms, Ann Arbor, pp. 501, 795. What Le Blanc appears to mean by this reference is that in the cantata the violin has invaded the intimate world of private music, which was indeed the case. French cantatas began to be published in 1706 and reached a peak of popularity about 1728, although they continued to be popular until mid-century. They were performed in intimate music-making and in grander festivities like the *fêtes* at Sceaux held by the Duchess du Maine in 1714. They were also performed in public concerts, including those at the *Salle des Suisse*, but their vogue passed with the construction of larger halls, as they were essentially an intimate form of music. The most common instrumentation was violin, figured bass, and treble voice.

⁹⁰Alpheus, a river-god, was in love with Arethusa who was changed into a spring. Alpheus goes beneath the sea and mingles his waters with those of Arethusa, whom Virgil addressed as a goddess of poetical inspiration. Alpheus is also the chief river of Southern Greece. Its waters were said to pass under the sea and rise again in the Fountain of Arethusa in Syracuse. Le Blanc here seems to be comparing the violin to Alpheus, mingling his voice with the Lady singing the solo part of a cantata, like the mingling of the waters of Alpheus and Arethusa.

⁹¹Somis from Italy and Geminiani from England.

⁹²When Demosthenes was to be crowned by the Greeks, Aeschines attacked the idea. Demosthenes had already made several political attacks on Aeschines, but in this final one Aeschines struck back; however Demosthenes responded with his greatest speech, "On the Crown", which resulted in Aeschines' total defeat and withdrawal to exile in Rhodes. So since the Viol has won an advantage, the Violin, represented by Somis and Geminiani, will make its greatest effort and bring the Viol to ruin and exile.

M. LeCler and Guignon)⁹³ and the Viola da Gamba which had passed its flower. The *coryphées*⁹⁴ of the *pièces* and of the sonata were no longer there to defend her, and the difference between their times and ours is very great. Music today is stuffed with innumerable notes in a small space, which throws dust in the eyes. If it furnished them with notes better placed in less quantity it would be more satisfying to a fine ear, though less striking in terms of the common ear-drum.

One must make an assumption which is not a lie. You must realize, with respect to the Viola da Gamba, that it could happen unexpectedly that the masters brought taste to its present perfection in the composition of sonatas on the Viol, so much better than those of the Violin (which would be perfectly all right for them, since the viol has two more strings in the bass, which opens a vast field for the harmony, while it is already more fertile with chords).

Having posed the preliminaries, Somis and Geminiani played the piece.

Geminiani (since it was necessary to begin with the finest playing) was admired as much as the sonatas of Corelli which he played. They furnished the basis of that harmony which was most capable of exciting emotion, which sways the sonorous bodies like the voice. Geminiani embellished notes with tones increased by all sorts of designs. The spirit was charmed; the ear was satisfied.

The beautiful listeners were ready to fall into a swoon, their souls came to their lips, and knew not where to run to carry a remedy for the injuries inflicted in the manner of Ovid.⁹⁵ The sounds of Geminiani were the timbres of England and of Germany.

One pauses to ponder the sound of potable gold,⁹⁶ which came to infuse itself through the ear, as in some one of our planets where one eats by means of the eye food apparently suited to that organ.

⁹³Pierre Guignon (1702-1774) was one of the great French virtuosi who played in the *Concerts spirituels*. He was born in Turin but, like Lully, came to France in his youth.

⁹⁴A *coryphée* was a leading male dancer; Marais and Forqueray were the principal exponents of *pièces* and of sonatas for the Viol and thus acted as the *coryphées* for these repertoires.

⁹⁵That is, they were as much affected as they would have been by the amatory arts of Ovid's famous treatise.

⁹⁶Gold colloids in liquids of gorgeous red and blue colors were important remedies sold by apothecaries.

One would confer, hear some accounts, read some observations in order to know what one would have to oppose, when one would be correct on the whole.

Somis appeared on the stage. He displayed the majesty of the most beautiful bow stroke in Europe. He conquers the limitations where one often comes to grief, surmounts the dangers where one runs aground—in a word he reached the peak of a great endeavor on the Violin, *the holding of a whole note*. A single down-bow lasts so long that the memory of it makes one breathless to think of it, and it seemed like a stretched silken cord which (in order not to be boring with the bareness of a single sound) is surrounded with flowers, with silver festoons, with golden filigrees mixed with diamonds, rubies, garnets, and above all with pearls. One saw them spill out from his fingertips.

Music came down from Olympus and having her design, put it into the souls of the Ladies to receive Somis kindly. He was thus received sometimes by some and sometimes by others, and this—the space of one month—without there being any mention during this time of passing judgement or of dreaming of opposing a rival to him. But the turn of events was not fulfilled, for, as if it were inevitable and one had to go to sleep to prevent a quarter hour of boredom, the Ladies felt a deep depression, and experienced weariness about hearing the music.

They asked each other if this might be fantasy on their part, but the feeling was universal; it had to proceed from a common cause which had given it birth. This cause at last was found to consist in the fact that the ornaments were separate and could be detached from the subject being treated and applied equally well to others. Truly there were jewels, diamond flowers, joined with Cleopatra's pearls, emeralds, and so forth, but mounted in settings which rested on a very ugly foundation—to understand the composition which furnished such unsightly settings for such great brilliants.

With these embellishments forming many separate sections, the Ladies made signs to each other that they had already passed before them many times and that the concert, a kind of hearing of ceremonious leave-takings, was like a general inspection.

This manner of playing was rejected and obstructed. Being humane, above all toward strangers, the Ladies again blamed the fickleness of the Nation and the love of change for giving up even good things. They resorted to the touchstone of engaging Mr. Blavet to play in order to prove that however many times they had heard

him, it did not prevent him (as the Greeks said of Homer) from being heard with perpetually new charms. M. Blavet took for the basis of his performance that admirable composition by M. Michel,⁹⁷ the second sonata of the second book. In the prelude there were embellishments going from one note to another by section so that the harmony was preserved completely, thus preventing the boredom of too great a simplicity, as was said of some Roman sculptors who clothed the statues instead of making them nude in the Greek manner.

The nobility of the expression was reflected in the whole way of playing from which one could detach nothing that would not affect everything: when in spirit one is attached to some particular place, one feels that it makes part of a beautiful whole but that it does not result from any single isolated figure. One feels that if some little bit were detached from the divine facade of the Louvre, it would be assumed a thousand times more (because of the general proportion of the whole, marked by superior genius in the grand manner) that it would not present to the eyes the most charming figure, best shaped in Dieppe ivory: the latter is pretty, but the first heralds the great [art].

The Ladies wrote to each other with a common message: that playing is marked with an aspect of character as full of majesty as Jupiter; it is like a work created by Phylacles⁹⁸ about Telemachus, in that it is far superior to a tissue of embellishments.

One never spoke of the great dance air,⁹⁹ of majestic bearing, of the nobility in the fashion in which, even if it were subjected to repetition so that it was reproduced several times, it is seen again with a new enchantment. The spectator always finds his own imagination inferior to the elegant sublimity of such a model—but the dainty morsel, the trinket, never has so full a victory. Its conquests were easier to make than to preserve.

⁹⁷Michel Mascitti. True to his usual conservative nature, Le Blanc cites only the earlier sonatas of Mascitti though he must have known the later ones as well, as all his published works had appeared by 1738. Op. 1, 1704; op. 2, 1706; op. 3, 1707; op. 4, 1711; op. 5, 1714; op. 6, 1722; op. 7, 1727; op. 8, 1731; op. 9, 1738.

⁹⁸Philocles, a nephew of Aeschylus, was a Greek dramatist who won a competition against Sophocles. His astringent style, however, was characterized by the comic poets as meriting the nicknames "Gall" and "Son of Brine".

⁹⁹Mascitti's second movement.

The phoenix from this side of the Alps [Blavet] cannot be set off against the transcendent one from across the mountains [Somis] without remembering that the bet on Geminiani was for a high stake. The present action of the Violin in his hands had to be opposed by the description made of Forcroi senior. He was judged cold, like all narrative compared to the act; yet nonetheless, the memory of that great man was not in the least enough to counterbalance the presence of such formidable athletes. After God Himself, M. Blavet was partly indebted to Forcroi for that correct, sincere taste, so hostile to the mewings and finicky hair-splitting of counterfeit coin.¹⁰⁰

Forcroi senior had played with many of the Ladies who were present at the concert. They had always had the charming pleasure of accompanying him on the Harpsichord or even learning the upper part on the Viol from that divine master. He had left some students of the Viol who had not made it their profession but who had no equals among all the students of the violin.

Thus one acknowledges that if hearing an *adagio* by Corelli played by Geminiani was one of the most beautiful things - giving justice where it is due - one would [still] be forced to conclude that no one in the world had played the sonatas of M. Michel with such great taste - so pure, so correct - as Forcroi senior, and of a kind of sound more unconfined by wood - he seemed to know the golden Lyre which Achilles seized in the plundering of Lyrnesse.¹⁰¹

The definitive conclusion of the Ladies was that there was nothing in the world equal to two Viols in tandem as perfectly performed by *dessus* and bass in the hands of Marais when he played his *pièces* accompanied by M. de Saint-Felix, and of Forcroi senior playing sonatas accompanied by M. de Bellmont.

In this particular case, these pairs surpass the union of any other kind of matched instruments, since the Violin and the Violoncello make their sounds at the excessive distance of the double octave. The accompaniment of the bass by another Viol in the tenor range is richer in charms and attractions. It results in an unrivalled sweetness of harmony. The Violin, in the surroundings of the

¹⁰⁰*Faux aloi*. *Aloi* is the statutory degree of purity of gold or silver.

¹⁰¹Lyrnessos was one of the towns of Mysia seized by Achilles early in the Trojan War. Part of the booty Achilles seized at Lyrnessos was Briseis, wife of the murdered King. Contention between Achilles and Agamemnon over Briseis had led to Achilles' withdrawal from the Trojan War.

Harpsichord and the Violoncello, has the effect of a little octave¹⁰² in the Harpsichord, which many people disapprove of and proscribe despite the flutelike sound which it causes.

If one objects that the Harpsichord suffices all by itself to perform both the *dessus* and bass parts, and even to supply the filling in of its harmony, it would be a correct answer to say that to want to do everything makes nothing good. For how can a subject be set forth if it requires any kind of declamation, and how can it be pursued when it seeks to portray the grand passions or the great vessels of the human body as they undergo a great distention,¹⁰³ when it is necessary to express in the sound of the instrument the prodigious swells and appropriate diminutions which they arouse? The Harpsichord is thus appropriate for bantering or to make a noisy display, as it only knows how to pinch, to cajole, or to trill, like the client of Demosthenes who, when he consulted him in his capacity as an advocate, complained to him of having been beaten in cold blood. Demosthenes responded with blood no warmer, "You jest, no one has beaten you." "What!" replied the complainant, raising his voice a note higher, "I have not been beaten at all!?" Then I guess you'll believe me when you see his jugular vein swell up!" Can one believe that it is otherwise with musical instruments, by saying, "The only thing they lack is expression." Ah, yes, there are people for whom the only thing lacking to be beautiful is a nose in the middle of their face!

The Lute and the Theorbo, with their plucking, also have the inherent defect of not being expressive because they lack a bow. Their incomparable Harmony gives out everything in resonance and leaves nothing at all to the voice. On the other hand, the Violin, through the extraordinary tension of the short, thick strings, sacrifices all to the voice.

The Viol holds the proper middle position, with its bow and its flexible strings; it gives voice without sacrificing resonance.

The details of the legal process having been brought to King Louis XV, the monarch reserved the foot-stool in his cabinet for the Viol.

Consequently its partisans were not flattered without reason that His Majesty, who played the Viol, judged it to be preferable in

¹⁰²4¹ stop.

¹⁰³Presumably, as the blood vessels become distended in great emotion.

the chamber to all other instruments, even to the Violin, although the Emperor Joseph was a master of it to the point of having composed [for it] on the *Aria Caesarea*.¹⁰⁴ His Royal Highness, Monseigneur the Regent,¹⁰⁵ whom we consider to be of excellent standing on the Viol, has also been favorable to it.

THIRD PART

Rules for making everything playable on the Viol and the Pardessus de Viol. Precautions to take for the holding of the instrument and the method of tuning it.

The first quality of a musical instrument, if it is of any account and not to be proscribed, consists in not being restricted in any respect, neither in high range, nor low range, nor in a lack of half-steps. The term *restricted* is meant with regard to the playing of Sonatas, which are the Prose of Music—that Prose which all instruments of any account which aspire to immortality ought to be able to speak easily, with facility, as one speaks the *Frankish* language in the Levant, the *Malay* language in the East Indies, and *Latin* in the North.

When things which are difficult to perform present themselves, many masters have on their lips the phrase: "That was not written for the Viol."

It is a great injustice to the Viol (to accuse it of their own incapacity). There is no music in the world which she is incapable of mastering and consequently nothing can be found which is not written for her.¹⁰⁶

That unhappy *Dictum* is a primary reason why people don't make a strenuous effort to become really expert on the Viol, as if one could exhaust its science but not that of the Violin!

The second reason for the decline of the Viola da Gamba has

¹⁰⁴Joseph I (1678-1711), King of Hungary and Holy Roman Emperor, was an excellent musician whose compositions have been preserved. For no composer would an *Aria Caesarea* have been more appropriate.

¹⁰⁵Little other reference to the viol-playing of the Duke of Orleans is known, although his other excellent musical skills are well-known.

¹⁰⁶Note that earlier Le Blanc has referred to performance of Mascitti's violin sonatas by both Blavet (flute) and Forqueray (viol). See p.33.

been the opinion current for some time that it was the special and peculiar property of absolute masters in that art, exclusive of all others, who could only be in a bad way (or at least little advanced in the good way) if there were among them those who had not passed at all through that channel without which it would be impossible to make valuable progress on the Viol.

This idea breaks the arms of the hard-working ones who have good reason to say to themselves, shall we work all our lives only to be second? The efforts which we are able to make, shall they result only in gleanings? Will there never be anything for us except the tutelage of those who only disclose what they please to us of the Art, holding us at their mercy so long as we submit slavishly to following them.

But these Masters foment the total renunciation of our proper intelligence and the blind obedience to theirs, since they cause the Viol to be like an inheritance descended in their family, exclusive of all the others who only have that knowledge which they have condescended to let fall to them.¹⁰⁷

That never happened in the case of the Violin, which is considered to be like a vast ocean where everyone is always free to fish.

The Viol would be lost if the purpose of this art has been in effect a family secret. If the principles consisted in an oral tradition, they would never be hidden to strangers; so farewell rivalry!

In the case of knowledge, the belief that one could persist in pretending to be inimitable would be fatal, even to those who held it. One is lulled into the security of being convinced that he has everything in his own service and that the rest of mankind all together are incapable of supplying anything which merits borrowing. This is a false security, which imagines itself perpetually reposing in the shade of laurels planted by an ancestor of an art, which art consists in liveliness and delicacy of movement, beauty of playing and nobility of expression which progress to the infinite!

It is equally certain that the whole soul of the musical world has not been shut up in a single head, against the intentions of our Patriarch (who deserves the name Divine, like Homer, Hippocrates and Plato). But no, if one follows what he said blindly (that it is

¹⁰⁷This unflattering reference to the sons of Marais and Forqueray is the only acknowledgement of their existence which Le Blanc makes.

necessary to play all the *pièces* every two weeks), would that not limit the human spirit, confining it entirely to its own sphere? It is true that it had beauty above all beauties, but on the other hand, etc...

In spite of all that, one must, to render justice on these points, recognize their skill instead of seeking to humble it. One will agree readily that the Viol is indebted to them for more than a *third* of their patrimony, but not for *all* of it, if they please!

Since it is utterly foreign to them that their pretensions on this point be reasonable, they take great pains to absolve themselves from the charge of having arrested the progress of this instrument.

At Lyons it is pretended that it is the Viol's fault that she is enslaved by M. LeCler, originally of that city. Here it is a question of convincing Paris that the slavery originates from the defects in the method of teaching the instrument well.

Before getting down to the details, it is necessary to begin by stating some of the circumstances which have contributed to the fact that composition for the Viol has been less cultivated than that for the Violin. The Masters of the Viol have not been imitated too much. This instrument does not sound at all in large places. It cannot be played at the Temples,¹⁰⁸ nor in the theaters, nor in well-filled concert halls. But keep in mind that Achilles could not have played his Lyre in any of those places either. In such circumstances fewer people dedicate themselves to propagating their activities as they bear so little fruit. For this, the Masters are very forgivable.

But does it not try the patience of students of the Viol to be put to such a test that it makes that of the disciple of Pythagoras seem only a prelude! After a time three times as long as the siege of Troy, the true intricacy of the difficulties of the instrument must be recognized all over again! It is like always having to begin over again

¹⁰⁸The Temple, which dates back to the late 12th century, was originally a fortified lodge of the Knights-Templar. Several buildings were added to it, one of which became the residence of the Grand Pryor of the Order of Malta (and Prince de Conti) who, at the time Le Blanc wrote, was Louis-François de Bourbon (1717-76). In this palatial setting, brilliant *salons* were held, and after the death of La Pouplinière in 1762 (who maintained one of the grandest private musical establishments in France), the Temple was the leading private house in Paris for music. The Prince's summer residence at the Île-Adam and his winter home at the Temple had continuous spectacles and concerts of lavish dimensions. Among the notable touring musicians who appeared there in the 1760's were the violinist Viotti and the little Mozart children. Rousseau was a well known member of the Prince's circle of literary friends. His musical taste was decidedly up-to-date and he would have been quite unconcerned about the fate of the Viol.

to shift the fingers to make many little notes on the string; the mind finds no fixed points to hold onto, where it can fasten itself or make any correlation with its understanding of how to proceed afterwards. It wanders about among singular circumstances which produce a local memory but do not create a principle [by which to proceed]. It is as if in Law one adhered to the practice of pursuing just the unique case, without going back to the three General Sources—Natural Law, the Laws of the People, and the Civil Law; so, with the *pointillement* (the making of many short notes) and the shift, one never gets out of the dead-wood of the underbrush; the first play in the live wood has yet to be made. Ah!, to play the Sonatas of M. LeCler with all their chords it would be necessary to have penetrated clear down to the marrow.

Was it excusable, when little was written for the Viol, not to have tried to make all the new productions for other instruments enter into partnership? It is bad enough that the alternative to appropriating Sonatas is to limit the Viol to *pièces*, letting it be tied to the label of an old fogey, consigned to sift and resift through the old melodies, always repeating the same songs like a barrel organ, and that in the country of the Theater of Novelty!

These Gentlemen claim that they have to teach the Students their lesson every day for their whole lives (except for their expenditure, they would be lost), and that they don't know how to play the *dessus* on the Viol at all, while many Ladies are accompanying the basses of Corelli and M. Michel [that is, *violin* sonatas] like angels on their Harpsichords. No, the Masters of the Viol are not to be commended for having carried on such a practice: *in hoc vos non laudo*.¹⁰⁹

The Ladies have been taught perfectly well on the Harpsichord; one cannot disguise anything about it to them. A Master can dissemble nothing about his skill to them, lest they chance to trap them.

It could be said that the spur was used with the Violin Students, who were pushed to extremes in the vast field of their Science; they were given full scope to master it (as Alexander gave to Bucephale).¹¹⁰

Meanwhile a short rein was held on Students of the Viol, even to

the wasting of two-thirds of the time of their youth, so profligate to lose the temper of their steel in a dastardly manner on the labored playing of the *pièces* which were liable to be forgotten; and what is more deplorable until the extinction of that so precious ardor for learning and doing well, which the teacher of *pièces* fears will be fatal to him and his ilk. For in making detachable embellishments with which the playing of the *pièce* is stuffed or overburdened, there are found some students' hands which make their Master tremble that they might take his plumage from him, as the jay takes that of the peacock, which is not his own, using the plumes to bedeck themselves in foreign feathers, with which another might come along in a little while who will be just as good as he. Such is the great difference of merit between the immense profundity of science such as the Masters of the Violin have acquired, and that superior position based merely on the concealing of knowledge, as the Masters of the Viol have so obviously done. Would M. LeCler fear that a student would come who surpassed him in his knowledge of the instrument? It is indeed true that he is nothing if not industrious, and that he does not rest in the shade of the laurel trees left as a heritage. Sustained work in a good manner does not give rise to the fear that a newcomer will appropriate the fruits of that labor in an instant—as can happen with respect to mere embellishments.

Another route can thus be found, which is that work on the Viol, just as on the Violin, is found more powerful than mystery.

While the Viola da Gamba has been lulled to sleep (held in a true lethargy by the *pièces*)—just like Renaud enchanted by Armide¹¹¹—the Masters of the Violin, Flute, and Violoncello have mounted a prodigious advance, letting those of the Viol realize that if it hesitates in its path, it sees itself immediately outstripped by its travelling companions.

The third reason the advancement of the Viola da Gamba has miscarried is the old way of teaching, because the idea was that you had to play on the same string as much as possible. Now this idea was based on its apparent ease, but in reality it only resulted from an

¹⁰⁹In this I do not praise you.

¹¹⁰Bucephalus was the favorite horse of Alexander the Great.

¹¹¹*Armide et Renaud* (1686) was the last great operatic collaboration between Lully and Quinault, and one of their most celebrated successes. The reference here is to the famous sleep scene, in which Renaud is under the spell of the enchantress Armide ("Plus j'observe ces lieux", Act II, scene 3). Revivals of the opera occurred frequently, almost up to Gluck's setting of the same text in 1777, so it was still being heard in Le Blanc's day.

ignorance of the fingerboard. As a result of the slavery of playing on the same string one can produce only a thin voice—a beautiful one, in fact, but having only the effect of a single line.

The new method, on the other hand, tests the command of three strings on which one can always grasp the whole idea at one time, putting the fingers in place all at one time, giving an effect like a shower of water, which allows the Master to play the notes with the rapidity of Cossoni, and which in addition permits him to play several at once.¹¹²

When the strings are all put down at once, the passage of the tones from one to another is more imperceptible, so as to hover, in the placement of the hand, over another string by which one makes it the servant because of the resonance which results from it.

The hand is not formed at all when one is enslaved by the greater part of the string as having more vibration, instead of pressing many strings down at once in a lively way against the fingerboard so that one learns to draw almost as much sound as from the open string. The Niagara-like leaps are avoided, which are so awkward to see in the movement of the hand, and which imply an ignorance of the fingerboard and are an obstacle to all connected notes—that is to say, those which are connected by a king of slur with the bow, which find the strings already pressed down to be ready to receive it (as Cossoni's voice unites in a web as many notes as she makes in a single breath).

It is not necessary to assume that in the displacement of the hand one is only concerned with gracefulness but indeed with the union of the sounds included in a sentence, like the words between periods or even commas, which it would be allowable for the voice to take a breath, and in the same way on the Viol, to shift from one position which has lasted through a sentence to another which lasts just as long. The result of this is a declamation like that of Le Couvreur, Mlle Le More,¹¹³ or Forcroi senior on the Viol.

Here then is the maxim formulated. The proper shift of the hand has the same effect as the taking of a breath, when the sense of a phrase is managed without interruption.

¹¹²Le Blanc never talks about the large number of passages involving chord playing in the works of Marais, for which surely this kind of fingering approach would have been required.

¹¹³Mlle Lemaure was a celebrated singer who made her debut at the Opera in 1719.

Consequently, one ought to teach the Viol as one teaches the Harpsichord to the Ladies, that is, to make each shift of the hand be in accordance with a phrase of music which forms a new sentence, to have 3 or 4 tones outlined at a time, placing the fingers simultaneously on that many frets.

The work of the left hand depends on the knowledge of the four different places where one can, on occasion, play the same thing, in order to put the fingers on the fingerboard at one time. This is consequently four times more difficult to get into one's mind than is the keyboard of the Harpsichord. In the same way, playing chess well depends on knowing where it is appropriate to place each piece in the battle and where it is necessary to determine the general relationship of all the pieces to each other, move by move.

The position to choose from among these four is determined by the ease of going from a musical period forming a sentence to another to which one is going to go. Ease in the manner of playing, which interrupts the thread of musical discourse the least and which draws the best connection between the parts, is the compass which acts as a guide to availing oneself of the right position.

The work of the right hand consists of using the modern bow strokes which reproduce and multiply the expressiveness, just as the rays of the Sun or Fireworks, when reflected, have the effect of tripling and quadrupling, through the reverberation, while the old bow-strokes¹¹⁴ only have the effect of a single wax-candle without reflection, imitating the plucking of the Lute or the touch of the Raven's quill.

The result is a skill in that difficult task, solved once and for all in the work of the two hands executing Sonatas—instead of being like *pièces*, where one always has to start over again from scratch. If one did not know how to depend on this principle, I have stated and restated it.

According to the way the Author composed it, so it must be played: if it is at the bottom of the fingerboard, there hold firm, proud and assured, for in incessantly going up and down, one marches between Heaven and Belial. One cannot rightly serve several masters at one time.

Generally speaking, you must put the fingers in the first

¹¹⁴As he makes no further distinction between "modern" and "old" bow strokes one is tantalized but not enlightened by this passage.

position for the first books of Senaillé, using the second for M. Michel [Mascitti] and the third for LeCler and the fifth book of Senaillé.¹¹⁵

Always keep in mind that what is played should be reducible to an *arpeggio*; that is the touchstone which determines which among the positions is the one suitable for controlling the same subject.

For on the fingerboard of the Viol one can find the [notes of the] keyboard of the Organ or the Harpsichord four times, in proof of which there are four positions of the same *d* from the open top string inclusive of the string where it is beyond the middle at the far side of the frets, assumed to be used in M. LeCler's [works].¹¹⁶

When the *intermediary tones* of the Viol are known (that is to say, all the little squares which are spread out on the fingerboard beyond those notes which are familiar to students), they are playable without displacing the hand, provided that it is advanced or drawn back a half-step because of the tuning of C at the third¹¹⁷ which is mixed with the other strings tuned in fourths.¹¹⁸ Victorious in the knowledge of the tones which can be borrowed¹¹⁹ on the Viol, a proselyte is thus considerably transformed—as the candied nut has been changed by sugar. O what a marvel! There are no more difficulties whose aspect causes terror, and the entire performance appears feasible, nor is it impossible. Better still, the difficulties become a reason for pleasure—which has been for sale less than that of creating mysteries, for it does not in the least begin by putting the mind in a box, when there is nothing but clarity and neatness of ideas on the subject of the four positions which are arranged there.¹²⁰ Ha! He makes fun of the one who wants to embarrass him by his labours by lamplight.

The old method thought it would risk everything on its infatuation with *pièces*, based on the advantage that those who were

¹¹⁵Le Blanc here is suggesting fingering for *violin* sonatas on the viol.

¹¹⁶That is, the *d* just beyond the fret in the middle of the C string.

¹¹⁷That is, the major third between the C and E strings.

¹¹⁸Bass viola da gamba tuning, D G c e a d'.

¹¹⁹That is, played on another string.

¹²⁰Le Blanc's term transposition does not refer to the modern positions on the fingerboard, but rather to the four places on the fingerboard where the same note can be played.

same old course in their murky tavern, rather than risk playing a part in the work of others.

Thus those obstinate people answered for the *pièces*, if there is anything other than sculpture in music, of which they are the ornaments. But was it not formerly necessary to create architecture which was the basis on which one would subsequently apply the ornamentation? This architecture is the science of playing without the servile preparation which the student knows so well—to play the sonatas which are the Prose of music and which one can speak without always having to begin studying them all over again.

It is said that the hand is formed correctly in the *pièces*. Does one wish to say that it acquires more grace? But that is only a preliminary condition. Beyond that it is an argument advanced gratuitously, for in a beautiful performance of the sonatas composed by M. Michel, the hand is correctly *spaced*, for, being given to the three or four notes to which the passage can be reduced so that they are prepared to be performed successively (which is ordinarily less well laid out in the performance of *pièces*, for they are not so reducible to arpeggios and the hand feels its placement disturbed by the irregularly placed tones).

The new Method set forth here takes note of the interval arrangement in the air with the hand, and when it is moved, it insures that it will fall with certainty on the best position *as a matter of habit* (hence the rule of the Octave in the Sonatas), and that it will not routinely encounter the *present* overelaborated positions of the *pièces*,¹²¹ where one always proceeds *by rote* and the hand (since it proceeds in an affected manner) certainly marks the apprentice of the Masters¹²² in the fundamental knowledge of the instrument, despite their compositions, which are merely an imposing show.

The *pièces* do so little to form the hand that it seems to those who play them that when they go beyond the frets they are on a steeple on which they can only proceed with trembling.

But those who are learned in the sonatas are bold to go beyond the frets and to promenade there with assurance, to draw forth

¹²¹That is, with continual shifting so as to play all of a passage on a single string, rather than the performance across the strings in a single position which Le Blanc is recommending.

¹²²That is, the Masters of the viol who teach mysteries by rote rather than Le Blanc's logical fingering system.

sounds which are still more mellow, playing at the top of the fingerboard infinitely more correctly than those who are restricted to *pièces*. What alternative is there to having the hand well formed—seeing that it is a dangerously precipitous country for their rivals!

It is true that in the notes which are reinforced by the frets players accustomed to *pièces* draw forth sounds more like the resonance of the sounds of clock chimes. But here we put away the music of ostentation, which is only seen for a few minutes, just occupying a little place which it shuffles through again and again.

Isn't it a question, in the music of commerce, of the manner of using life well? Who can doubt that even if one had the golden tongue of M. le Cardinal de Polignac¹²³ that it would be impossible to speak Prose as exquisite as the verse of *Phedre* or *Iphigenie*?¹²⁴ It is a problem [to try] to be agreeable too soon in an art; but to restrict itself to ornamentation!—what does it have to do with the essence of an art just to have memorized some scenes to recite?

A Great Lord who knows the Viol has stated that having frets makes it inferior to the Violoncello which has none; he says that it is subjected to having major and minor half-steps employed without distinction and having the one used for the other.¹²⁵

To answer this more important objection, it is necessary to remark that the part of the Viol which has frets is different (from the cello) in being divided into fixed semi-tones like the Harpsichord and the Organ where one has just one tuning once and for all for a Concert, and sometimes for half a year.

But with the Viol the movable peg (of which there are by no means an excessive supply as on the lute), negates the defect of having frets because one can adjust for each key in which one is going to play by tuning.

If one does not consider the objection to be resolved (since after choosing the key in which one begins, when one goes from B-natural

to B-flat the difficulty of having major half steps replaced by minor is still completely present), I answer that that proves that the falseness comes from other causes than that of the major and minor half-steps; they are an object of much less importance.

The proof of their slight importance is that there are Harpsichords where one finds half-steps of both kinds, which are nevertheless not free from wolf-tones in the change from one key to another. That practice is renounced as a flimsy advantage.¹²⁶

The objection of the semi-tone is based completely on the fact that when it becomes the tonic key in which one plays then on the Organ and the Harpsichord, it is a perpetual swearing. But the Viola da Gamba is equal to the occasion through the change of its tuning which is easy to move. One begins by tuning C on the sound of the given half-step.¹²⁷

On the other hand in the musical discourse, the little attention drawn to the semi-tones proves that they only hold the place of particles of conjunctive connection or of transition, such as *because*, *nevertheless*, and so forth. It is thus necessary to look elsewhere as a basis for decision.

There are major and minor tones put in their natural order in the octave, for the five whole tones which form more than two thirds do not observe an equal distance between each other. When one changes key, there is a general confusion with the tones which are the most widely spaced and which are replaced by the smallest. Those which have a moderate interval are replaced as sentinels by others which are either larger or smaller. There follow execrable oaths from those instruments which do not have the aid of movable pegs or which lack judiciously employed breath to moderate them,¹²⁷ like that of M. Blavet.¹²⁸

Thus each time one changes the key the displacement of the parts is all helter-skelter in the first octave and the others which are repetitions of it.

The theorists have noted that the strings, by dint of their being

¹²³Cardinal Melchior de Polignac (1661-1742) was a gifted diplomat who played an important part in negotiations at the Congress of Utrecht and in French diplomatic relations with the Vatican.

¹²⁴Plays by Racine.

¹²⁵That is, that the unequal half-steps of non-equal temperament are not observed on the viol, which like the keyboard has fixed pitches (on account of the frets). It is presumably the case that fretted instruments very often used a practical form of equal temperament as a natural result of their having the strings divided in the same place by the frets.

¹²⁶Here Le Blanc seems to favor an equal temperament for keyboard instruments, so that major and minor half-steps would no longer exist. He certainly rejects split keys as a solution.

¹²⁷Le Blanc refers here to the changes of key as *between* rather than *within* pieces, since he assumes that the pegs can be moved.

¹²⁸The flutist.

larger or smaller, make the fifth of *gamma-ut*¹²⁹ with different degrees of distance from the movable bridge of the monochord. They conclude from this that it is an impossibility to tune the frets correctly, as they form a line crossing over seven strings which are of differing sizes.¹³⁰

The answer is that the laws for the gut strings are variable. Two strings of the same size, with gut as clear as crystal rock, will make the fifth at a point considerably different from top to bottom without the reason being perceptible. Nor can one see why the more transparent string, without the least cloud, will be false while its bad-looking companion, cloudy and sometimes full of blemishes, will be true. Thus, when dealing with blindness on the part of the intelligence, experience serves as the guide. Two things to watch for when one puts strings on a Viol will remedy the alleged inconvenience.

1. That each string has its particular vibrations which the eye separates into equal parts, and which reunite without being like the trembling of the hand of the aged, or those suffering from some obstruction,¹³¹ or of people who have tics.

2. To set up the string by hand, with the aid of someone else, from the nut (saddle) to the bridge, to prove on the frets if it makes the third, fifth, unison and octave true to its neighboring string with an equal degree of distance.

By dint of changing about, you will find that which suits you, for the difference between one string and another—even of the same appearance—is very considerable at the top and at the bottom of the string. I repeat: discernment, patience and strings to choose from are required.

The first precaution (which is odd in music) depends more on the eye than on the ear. Hurel at another time and I today would have chosen what was good at the luthiers, toying with the strings in our fingers, testing only one vibration for each. Pierret,¹³² seeing the

¹²⁹Le Blanc uses the symbol VG (ut-gamma) to stand for the lowest note of the musical scale or range. In Guidonian terms this note would be G, but the term may have been used metaphorically for “the lowest note”. The problem he refers to here is that of false strings, in which variation in diameter will mean that the fifth will not fall in the mathematically correct place on the monochord.

¹³⁰Le Blanc refers here to the seven stringed viola.

¹³¹Stroke or palsy?

¹³²A luthier of Lyons, according to the translator of the German edition.

pains which I took, without letting myself be impressed just by the transparency of the strings (like that of aspic) said (speaking through his nose) that he would not let me string up a Viol or Violin at his shop for 15 francs, for I was a connoisseur. Also M. de B*** realized how much better my Viol was strung than his was.

One ought not complain if one has to make it fit together properly; that does not happen much more often on the Viola da Gamba than on the Violin and the Violoncello; for not only are they subject to that which touches something in every sonata, but M. LeCler remarks that the ultimate in good intonation demands that one adjust it with every element which composes it.

The partisans of such highly praised intonation of the Violin only imagine that the Violoncello is included, under the pretext that it has no frets, for if the falseness is not in truth the result of necessity, it is too often one of infallibility.¹³³

Yet they know that two reasons require that these instruments—as well as the Viol—be tuned on the whole to the key in which they are going to play. The first requirements of the laws of nature are that the octaves be correct and the fifths somewhat small. The *A* which one gives for tuning, like the same saddle for every horse, is an absurdity; it is only good for playing in *A*. It is necessary to give *C* and its major or minor mediant [*E* or *E-flat*] to play in *C*, etc., and even the Violin must adjust its open strings a little to the places where one is accustomed to put the fingers for the totality of the key.

One is thus obliged to sacrifice a little from the others to the string of the key in which one begins on the Violin and the Violoncello, just as much as for the Viol. By this means, one will better preserve the correct tuning of the whole (morally speaking), by taking the actual physical good tuning of all parts compared with each other, rather than giving each isolated string its arithmetic perfection.

The second reason is that there has never been a single man who made one note precisely as another made it on the Violin—and even less on the Violoncello—nor one who put the same distances between the tones as those used by that other player.

The proof of the non-conformity is that two great Violinists never play *solo* together without giving the lie in a good part of the

¹³³i.e., that cello players are unerringly out of tune.

passages, because of the double difference of *citra* and *ultra*¹³⁴ in the manner of advancing the fingers, which remains uncomplicated compared with the proportional relationships when one plays alone.

The bass needs yet another indulgence because of the distances of the flying fingers in the air. Thus the property of being without frets, vainly claimed as a natural perfection of the Violoncello, becomes a vice in connection with men whose fingers maintain such distances [from the string] that they are far removed from having the precision of a screw compass or of a saddle cantle.¹³⁵

Masters playing on two Viols, when I have put on the strings and which it happened that I had tuned, will give the same pitch, more like one another than two masters of the Violin playing an upper part together. If one stops the finger once it is placed, then one will see that in a number of tones the resemblance will not be so perfect.

Will two Violoncellos ever aspire to bear the test of the *Duets* of M. LeCler?¹³⁶ They will cry as loudly as Stentor but will they speak precisely together without contradicting each other?

They have the approbation of those for whom strength is impressive and who are entranced by boldness, but the enlightened connoisseurs will be for that reserve about causing pain which two Viols have, who begin by playing in tune before trying to be so insistent.

That falseness, which absolutely requires the effrontery to lie impudently in order to pass muster—will it thus prevail over good intonation with its honest self-control?

A man who was clever on the Violin kept me at Dijon with scornful discourse about the Viol as if she were in that situation of which it was said formerly: "*the Milesians were formerly brave.*"¹³⁷ Elevating the Violoncello above the Viol, he said that the Violoncello did not attempt the upper parts but contented itself with the sphere of the bass.

¹³⁴Near and far extremes.

¹³⁵The rear upward projection of a saddle, as opposed to the pommel in front.

¹³⁶Probably Op. 3, *Sonatas for two violins without bass* (1730).

¹³⁷Miletus is a ruin which was once one of the great Ionian cities. After its defeat at the naval battle of Lade in 494 B.C., it was subjected to a whole series of foreign rulers, and was finally "liberated" from Persian rule in 312 B.C. by Alexander the Great.

I answer him publicly here—that an instrument is the more scandalously limited when it does not know how to play the upper part which is the soul of commerce of music. The Violoncello senses so well the importance of what I assert that it persists in sailing against the wind and tide on the infinite sea of the upper parts of sonatas, not taking his advice on the subject.

The Viola da Gambas defer still less on this point for they see it in the field of battle and not under the open axis of heaven—that in sonatas with chords there are many places in which they succeed better than the Violin in producing purer and more resonant sounds, while there are none where the Violin plays more distinctly and with less hindrance. The compensation is equal; you surpass me in some areas, I surpass you in others. The Violin does not venture to bear the test close-up—it is obliged to resort to distance to mask the hoarseness of many of its sounds.

The Viol, in fact, states to the Violin that it owes the ascendancy which it claims so strongly with regard to other instruments to the brilliance of sound resulting from the high pitch and not to the manner of managing some passages delicately; because it makes the open strings (which are like an *Orphéverie*)¹³⁸ sound too much, dazzling by the brilliance of the material more than by the true beauty of the setting.

If the Violin is robbed of its clear sound by a mute, it does not find itself more tolerable in the encounter with the Viol than the ugliness of the peacock's legs, after all that pride which it was accustomed to show when spreading out its tail.

This has been written solely to rehabilitate the Viol in its rights and not to praise those who in playing surpass the players of the Violoncello. On the contrary, these latter conquerors of such great labors (so immense that they make those who are about to begin tremble) are very estimable; one ought to admit that, but never that their instrument is amiable.

¹³⁸This term, which refers both to jewelry and to the decoration of the peg box of string instruments with a little head of Orpheus, has here the implication of a striking decorative accent.

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¹³⁹Le Blanc gives a very incomplete table of contents, which becomes increasingly sketchy for the latter portions of his treatise. The page numbers following each item directly are those of the original; those in parenthesis are those from this translation. The Roman numeral I refers to the *JVGS* (1973) and II to the *JVGS* (1974) in which the concluding part of the translation appears; the Arabic numbers refer to the page numbers in those issues.

¹⁴⁰Le Blanc is here identified as a *viol* player: in footnote 8 (I, 16) the translator identified Le Blanc as the violinist Le Blanc in the court of the Count of Clermont. In the passage, Le Blanc describes the fingering principle which he expounds in Part III of his treatise. Thus the Le Blanc mentioned so casually in Part I is not the violinist Le Blanc but Hubert Le Blanc himself.

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(A complete modern index and commentary to LeBlanc's treatise will appear in the 1975 issue of the Journal.)

Antique Viols and Related Instruments from the Caldwell Collection.

James Caldwell

The measurements are given in centimeters. The measurements of widths are made on the back at the widest point of the upper and lower bouts, at the most narrow point of the inner bouts. The overall length measurements are from the front. Those of depth are made by the hook bar or tailgut at the fold of the back (for viols with flat backs) and at the point where the neck joins the body. The body length is made on the top from the butt of the neck to the lower edge of the instrument.

Jean Baptiste-Deshayes
Salomon
Treble Viol

Stamped on the back: Salomon a Paris
[First half of the 18th century.]

Overall Length	59.4 cm
Body Length	31.9 cm
Width at Lower Bouts	19.0 cm
Width at Middle Bouts	11.1 cm
Width at Upper Bouts	15.6 cm
Depth at the Bottom	7.0 cm
Depth at the Fold	6.8 cm
Depth at the Neck	5.6 cm
String Length	31.8 cm

The body is in very fine condition. The neck, pegbox, and scroll are original. The fingerboard, wedge, and tailpiece are latter additions. The viol has painted purfling on the top. The string length is similar to that of a *pardessus de viole*. Another example of this unusual scroll may be seen in volume VII of the VdGS Journal (p. 117).

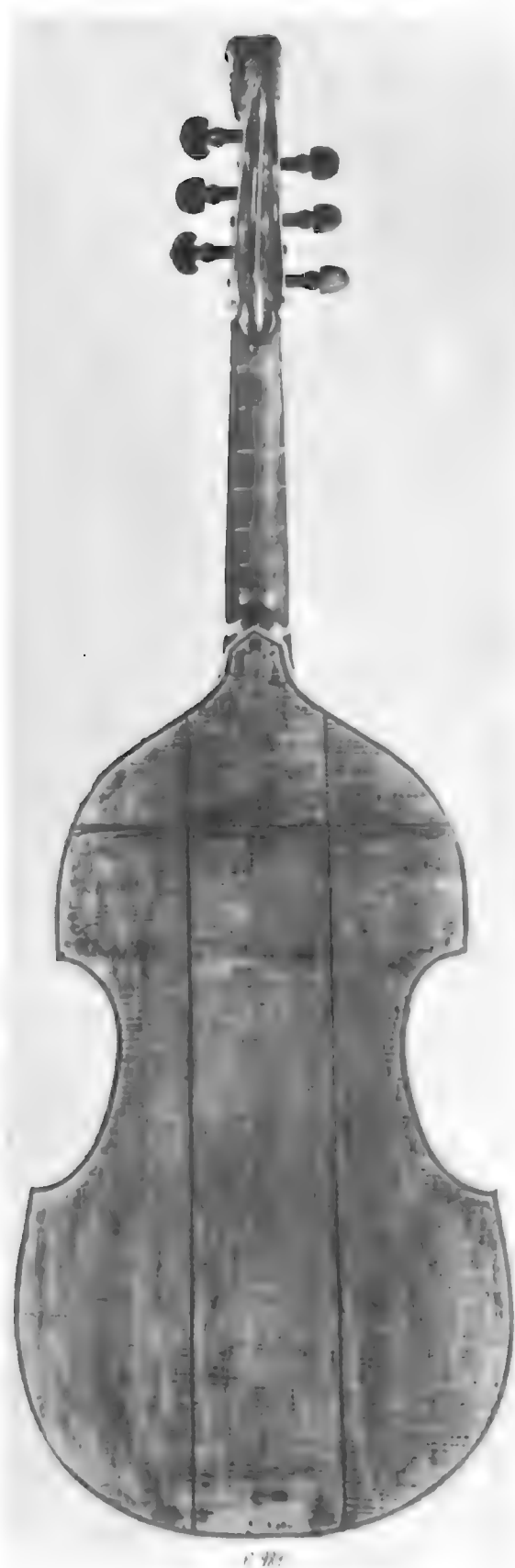


Johann Christian Hassert
Bass Viol

Label: Johannes Hasert a Eisenach Anno
1723.

Overall Length	123 cm
Body Length	72 cm
Width at Lower Bouts	40.7 cm
Width at Middle Bouts	24 cm
Width at Upper Bouts	34.1 cm
Depth at Bottom:	14 cm
Depth at Fold	13.7 cm
Depth at Neck	9.6 cm
String Length	69 cm

This instrument has a rather short neck in proportion to the size of its body. The neck angle in relation to the top plane of the instrument requires the use of a high bridge. The sides and back are in fine condition; the top is less perfect. The instrument has much of its original red-brown varnish. A Gothic rosette is set with parchment flowers. The sound of this viol is very dark due to the pressure exerted on the top by the high bridge.

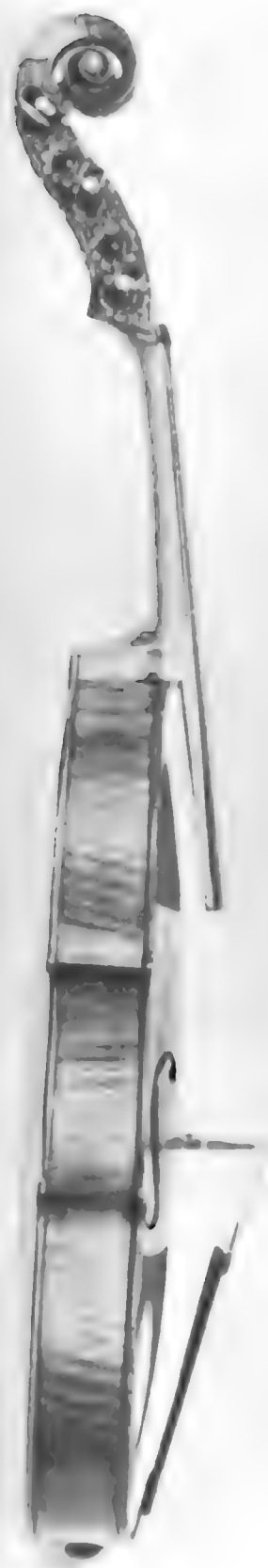


Louis Guersan Quinton

Label Ludovicus Guersan Prope
Comoediam Gallicam Lutetiae Anno
17—.

Overall Length62.3 cm
Body Length34.0 cm
Width at Lower Bouts20.6 cm
Width at Middle Bouts11.1 cm
Width at Upper Bouts16.15 cm
Width at Bottom4.0 cm
Width at Neck3.9 cm
String Length32.1 cm

The instrument has never been opened. All parts are original with the exception of the bridge and soundpost. The neck has been slightly narrowed. Ivory "fret" markings are flush with the surface of the fingerboard. When the bridge is correctly positioned the fingers must be placed half-way between the marks to be in tune. The instrument has almost all of its beautiful orange-red varnish and seems to have been played very little. Noteworthy are the solid silver "tail gut" and the tailpiece ornament. The scroll was probably carved by the sculptor Le Fille who is credited with having carved heads, scrolls, and necks for a number of fine French instruments in the 18th century.



Gregorius Karp Bass Viol

Label Not possible to read at this time

Overall Length 113.6 cm
Body Length 70.5 cm
Width at Lower Bouts 38.2 cm
Width at Middle Bouts 21.7 cm
Width at Upper Bouts 31.1 cm
Depth at Bottom 13.0 cm
Depth at the Fold 12.8 cm
Depth at the Neck 9.1 cm
String Length 62.4 cm

It may be assumed that the instrument was made circa 1694, perhaps at one of the Königsberg cities in which Karp was known to have worked in the late 17th century. This viol is a small consort or a large division viol. The top is in poor condition from worms, cracks, and poor repairs. The tone of the instrument is resonant. The head and body are original. The neck, added later, is arched very steeply. The lion's head is very like those seen on the few remaining early bass viols of Joachim Tielke of Hamburg. It has ivory teeth and tongue. The tongue was once painted red but now only a few traces of paint remain. There are perhaps no more than five of Karp's instrument extant. One tenor viol in a private collection still has its original case with the coat of arms of the Brandenburg Court.



Claude Pierray Violin

Label. Claude Pierray, rue des Follés
Saint Germain-des-Prez a Paris 1718

Overall Length60.6 cm
Body Length35.8 cm
Width at Lower Bouts20.7 cm
Width at Middle Bouts11.55 cm
Width at Upper Bouts16.85 cm
Depth at Bottom3.6 cm
Depth at Neck3.7 cm
String Length32.65 cm

This violin has been restored to what is believed were its original measurements. When gut-strung the instrument has a fine sound, although its tone is affected by changes in humidity and sounds less well in dry periods. The violin was once almost completely covered on the back and sides with painted flowers and vines and with extra gold and silver purfling. This work is almost gone but for a few flowers in black and red and some evidence of gold and silver in the varnish. Note the resemblance of the carved scroll to the one on the quinton by Louis Guersan (Plate III, p.65).

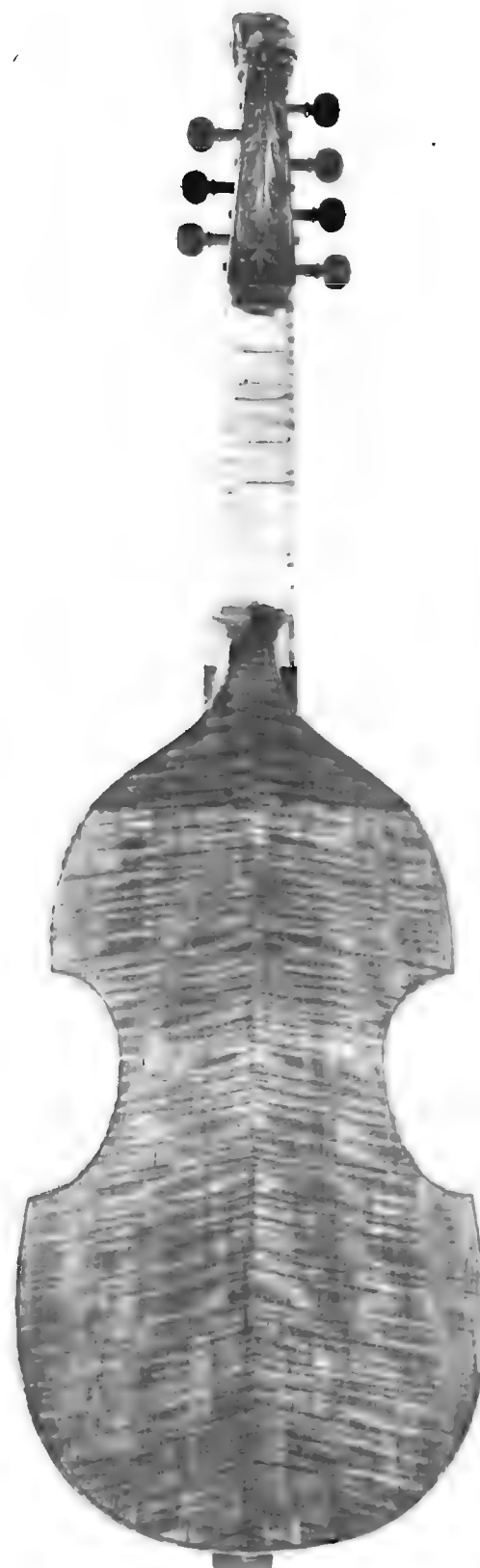


Jean-Nicolas Lambert Bass Viol

Label (Nearly illegible.) par Lambert a
Paris 17-.

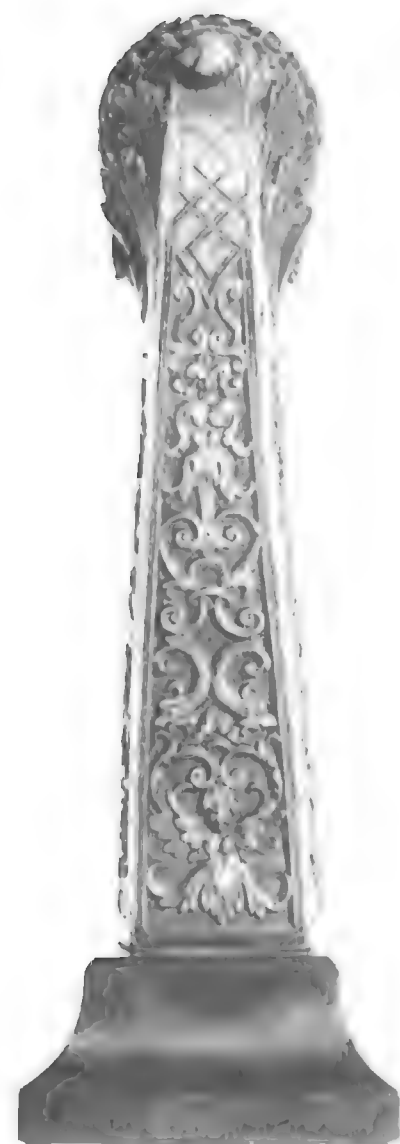
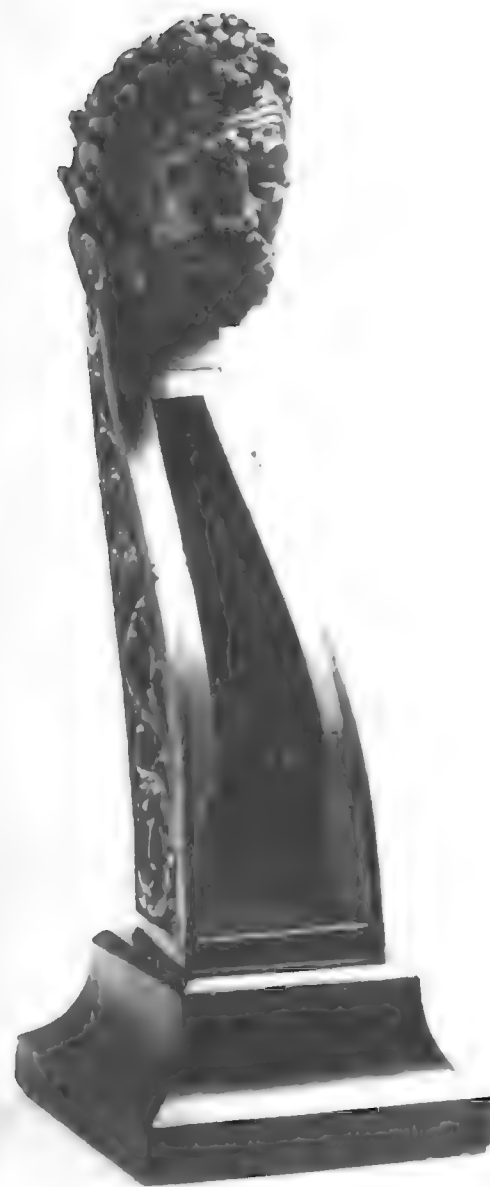
Overall Length 130.0 cm
Body Length 73.1 cm
Width at Lower Bouts 38.7 cm
Width at Middle Bouts 22.1 cm
Width at Upper Bouts 33.5 cm
Depth at Bottom 14.0 cm
Depth at Fold 13.8 cm
Depth at Neck 8.8 cm
String Length 72.0 cm

The original neck is lost and at restoration a new back was made to replace the other "new" back. The top of the front of the instrument had been reduced, and this part was expanded to achieve more harmonious proportions. In the restoration a longer neck, a new fingerboard, and a tailpiece were constructed. The assembled viol is large and has a typical French seven-string viol's sound. It is a bit darker in tone and slower in response than the Ouvrard viol (Plate XV, pp. 86-87).



**Head and Pegbox from a
Viola da Gamba.**

This magnificent carving, presumably English from the late 16th or early 17th centuries is almost identical to a smaller head on an unlabeled tenor viol in Canada. This head was bought at auction in London in the mid-nineteenth century. Lloyd Adams of Boston used this head as the inspiration for one which he carved for Gian Lyman Silbiger's Hummel viol (VdGS Journal, VI, 1969, p. 64, 73-74). I feel the head represents Ulysses bound to his ship and called by the sirens, which are carved on the back. The original viol would have supplied the "voices" of the sirens. The expression of the face seems to change according to the angle at which it is viewed and with the direction of the light. The wood is particularly suited to carving having almost no grain or flaws.



Barak Norman Bass Viol

Label: Barak Norman at the Basse Viol in
St. Paul's Alley, London, Fecit 1699. Also
stamped on the belly: Barak Norman
London Fecit.

Overall Length125.2 cm
Body Length68.2 cm
Width at Lower Bouts37.6 cm
Width at Middle Bouts23.1 cm
Width at Upper Bouts30.7 cm
Depth at Bottom12.8 cm
Depth at Fold12.9 cm
Depth at Neck9.0 cm
String Length70.0 cm

There are a relatively large number of Barak Norman viols still in existence. This may be due not only to their fine sound but to the beautiful decorations on their tops, sides, and backs. This viol has a new neck, fingerboard, tailpiece, bridge, and soundpost. The viol had been used as a cello (with four pegs and strings) and new holes were drilled into the peg box, destroying the original fine carvings. When the instrument was restored the sides of the peg box were replaced with new panels, reproducing exactly the patterns from another Barak Norman viol. The head is old but may not belong to this viol. The body is in fine condition. The back has no cracks and the sides have very few. The top has had a number of cracks, now beautifully repaired. The sound of this viol is exceptionally resonant. Another example of Barak Norman's work may be seen in volume IV (1967) of the VdGS Journal, (pp. 50-52).



Treble Viol

Unlabeled, late 17th or early 18th century French.

Overall Length	68.5
Body Length	37.0
Width at Lower Bouts	21.5
Width at Middle Bouts	12.5
Width at Upper Bouts	17.1
Depth at Bottom	7.7
Depth at Fold	7.5
Depth at Neck	5.5
String Length	38.2

All parts are original except the bridge and soundpost. The original fret marks on the neck were so clear that the bridge had only to be set to play "in tune" with the newly replaced gut frets. This resulted in a somewhat lower bridge placement than is usually seen. The instrument has not been restored and has had some worm holes in the lower back. The top and sides are in good condition. The arabesques and rosette are painted. The sound is very fine but a little soft due to the worm holes, and some openings. This viol is one of the rare full-sized French treble viols of this period. There is an instrument in the collection in The Hague with a similar head, but with a smaller body which seems to have been reduced in size. It is also unlabeled.



Bourlier Violin

Stamped on back: Bourlier à Paris.

Overall Length59.7 cm
 Body Length35.9 cm
 Width at Lower Bouts20.4 cm
 Width at Middle Bouts11.2 cm
 Width at Upper Bouts16.7 cm
 Depth at Bottom3.8 cm
 Depth at Neck3.9 cm
 String Length32.8 cm

This instrument has never been altered. Its slender bass bar, its thick, wide, shorter neck and fingerboard are intact. Its neck was never set into the block and is more in line with the top plane of the instrument.

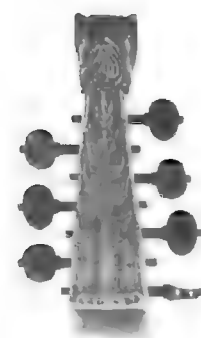


Georg Seelos Bass Viol

Label: Georgius Seelas in Insprugg, 16 --

Overall Length 130.0 cm
 Body Length 73.0 cm
 Width at Lower Bouts 41.6 cm
 Width at Middle Bouts 22.8 cm
 Width at Upper Bouts 31.8 cm
 Depth at Bottom 13.8 cm
 Depth at Fold 13.3 cm
 Depth at Neck 8.7 cm
 String Length 70.0 cm

The top, sides, and back are original. The body is very large, and may originally have been even larger. It is not possible to determine whether this viol was made with seven strings. The sound of the instrument is very rich and vibrant even though there are many openings and cracks in the extremely thin sides and back. The top is made of especially fine wood and has very few cracks. Many of the cracks in the sides and back seem to have been caused by the addition of braces and supports inside, which may have prevented the instrument from expanding and contracting freely with changes in the temperature and humidity.

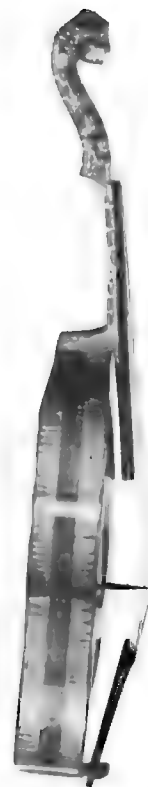


Louis Guersan **Two Pardessus de Viole**

Label. I. Ludovicus Guersan Propre
 Comoediam Gallicam Lutetiae
 Anno 1745.
 II Unlabeled.

	I	II
Overall Length	60.5 cm	60.7 cm
Body Length	32.4 cm	32.4 cm
Width at Lower Bouts . .	19.6 cm	19.4 cm
Width at Middle Bouts .	11.0 cm	10.8 cm
Width at Upper Bouts . .	15.9 cm	15.4 cm
Depth at Bottom	5.4 cm	5.3 cm
Depth at Fold	5.3 cm	5.1 cm
Depth at Neck	4.45 cm	4.2 cm
String Length	31.5 cm	31.5 cm

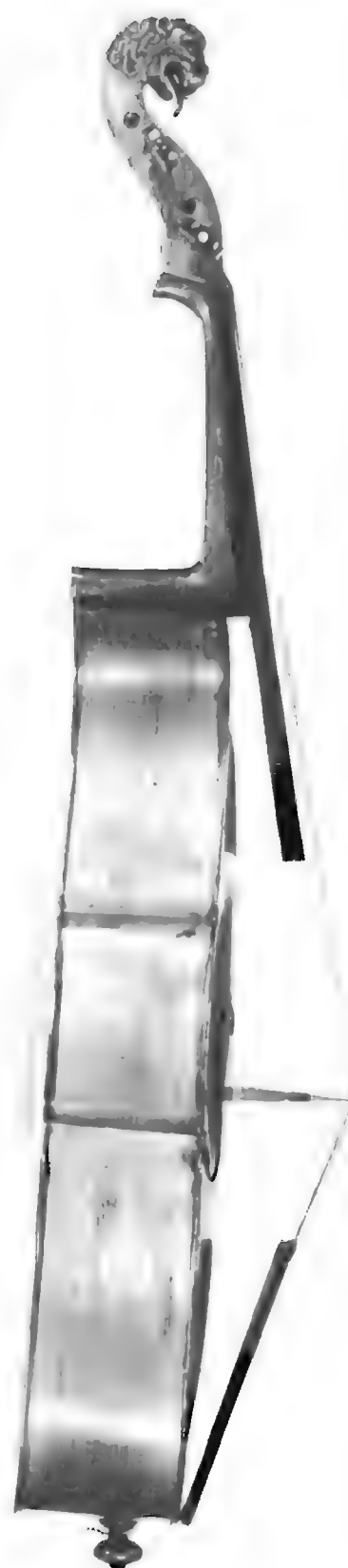
The heads of both these viols were probably carved by Le Fille. Number I at some point had its original pegbox re-drilled to hold seven pegs. This instrument has alternating stripes of light and dark wood. Its original varnish is almost perfectly preserved. Both viols have the typical sweet, flute-like quality for which Guersan is noted. Another example of Guersan's work may be seen in volume X (1973) of the VdGS Journal, (pp. 44-49).



Antoni Wacter Violoncello

Label Antoni Wacter (Geigenmacher) im
Faulenbach by Füssen, 17—.

All parts except the bridge, soundpost, and brass "tailgut" are original. One peg is an old replacement which does not quite match the others. The original brass wire was broken and had to be replaced. The back was cut on the slab from a piece of wood too small even for this very small cello. Pieces were added at the sides of the lower back at the time of construction. The instrument has a bassoon-like quality. The fingerboard, wedge, and tailpiece are maple but painted black. The instrument is modeled after Steiner and has a beautiful orange-brown varnish.

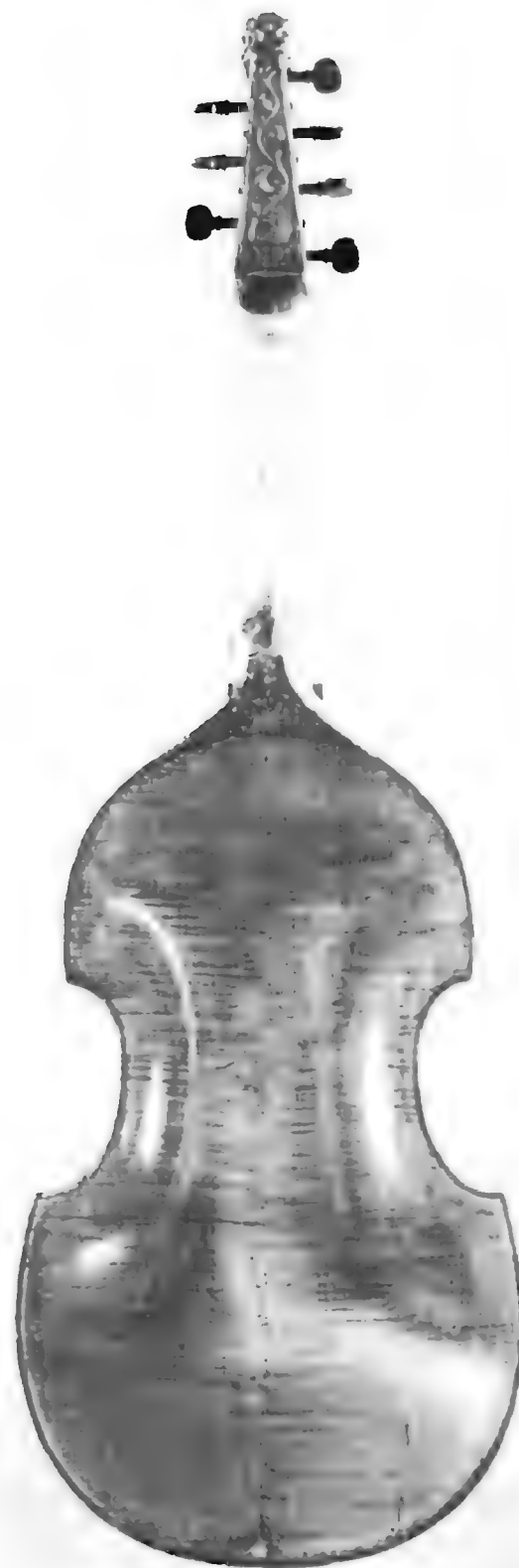


Jean Ouvrard Bass Viol

Label: Ouvrard, Luthier, Place de l'École,
à Paris 1743.

Overall Length125.5 cm
Body Length69.0 cm
Width at Lower Bouts39.2 cm
Width at Middle Bouts23.3 cm
Width at Upper Bouts32.3 cm
Depth at Bottom13.1 cm
Depth at Neck12.4 cm
String Length70.5 cm

This viol had been reduced in size at the shoulders giving it a cello-like appearance. The peg box is not the original one. The curved back is original. When this viol was restored, the original sloping shoulders were reproduced and a longer neck was made to give the viol its longer and more normal string length. The sound of this viol is typical for a French seven-string viol and is somewhat softer and darker than German and English six-string viols.



Joachim Tielke Bass Viol

Label. No label by the maker. Two repair labels by C. F. Albert, Philadelphia, 1888 and 1909

Overall Length123.4 cm
Body Length67.1 cm
Width at Lower Bouts38.4 cm
Width at Middle Bouts21.6 cm
Width at Upper Bouts30.8 cm
Depth at Bottom12.6 cm
Depth at Neck8.5 cm
String Length68.0 cm

This instrument has been authenticated by Gunther Hellwig of Lübeck and dated by him between 1677 and 1680. It is the first known Tielke with an arched back that has been carved and bent to the shape. The Tielke viol is the first of eleven known with this type of applied decoration on the back. The instrument has been in America since it was purchased at auction in London in the mid-nineteenth century. The neck, pegbox, fingerboard, and tailpiece are new, copied from the *Basel Tielke*. The head is old but perhaps not original for this viol. The instrument is in perfect playing condition. Its sound and that of the Ouvrard viol may be heard on the new Cambridge recording of Marin Marais and Sainte Colombe — CRS 2201.



Fray Juan Bermudo's Methods of Measuring Frets*

Gordon J. Kinney

The modern player of 16th-century music, if he plays it on a fretted instrument—such as the lute or the viol—and ties on his own frets, finds himself confronted with problems of intonation and, in consequence, of temperament: namely, in order to play this music satisfactorily, to what pitches should the frets be tuned?

Vihuela players in Spain, and players of fretted instruments elsewhere in Europe, had these same problems and were forced to find practicable solutions for them. Two such solutions, or kinds of fret intonation, are given in precise detail by Juan Bermudo in his *Declaración de instrumentos musicales* (Ossuna: Juan de Leon, 1555) in the section of **Book IV** which deals with vihuela playing.

(It should be explained here that the word *vihuela*, derived—like *viol* and *fiddle*—from the Latin word *fides*, “string,” was applied to two species of instruments: the *vihuela de arco*—the bowed *vihuela* or viol—and the *vihuela de mano*—the plucked vihuela, which is the guitar-shaped Spanish version of the lute, with six or seven courses of strings, built in various sizes, and for which a number tablature was employed with the top line representing the lowest string.)

Bermudo's remarks were intended to apply to the *vihuela de mano*, with six or seven courses of strings and normally provided with ten frets. What we shall call here Bermudo's First Method (**Bermudo I** in the appended charts) is one which he says was in current use at that time. What we shall call his Second Method (**Bermudo II**) presents what he himself devised as an improvement over the First Method.

Before the relative merits of these two methods can be presented intelligibly it will be necessary first to discuss briefly those aspects of the system of modes then in use which present difficulties when music composed in this system is performed on instruments of entirely fixed pitch—such as the keyboard instruments and the harp, and those of partially fixed pitch—such as the fretted instruments and the finger-holed wind instruments.

*The present article is a somewhat expanded version of a paper of the same title read at the colloquy of the South-Central Chapter of the American Musicological Society, Louisville, Kentucky, March 29, 1974. Copying errors in the charts presented there have been corrected in the present version.

Bermudo's modes are firmly rooted in the hexachord system, in which each hexachord is a scale-set of six pitches, sung to the solmisation syllables *ut re mi fa sol la*. Each pair of successive syllables forms a whole step, except for *mi-fa*, the only pair of syllables available with which to sing a halfstep. Therefore, to sing a scale for a full octave, *mi-fa* must be used in two different places. To make this work, it is necessary to conjoin syllable sets from two different hexachords. The point of overlap is called a *mutation*, or “change.” In the hexachord system each letter is accompanied by one, two or three syllables, which represent the available choices. Thus the pitch designation “g sol re ut” (written *gsolreut*) means the “g which can be sung as either *sol*, *re* or *ut*,” depending on the context. Bermudo represents each mode by its “final letter,” or keynote. For the composition of plainsong he allows only the eight “natural modes,” or the four authentic-plagal pairs (each pair having the same final) with the respective finals d, e, f, g (see *Harvard Dictionary*, “Church modes”). These embody the use of only the eight pitch-letters from G to a—eight rather than seven because of the inclusion of the round and square forms of the letter b (i.e. b-flat and b-natural), the former as *fa* and the latter as *mi*.

It is important to bear in mind that both of these notes, in the view of Bermudo and his contemporaries, are “natural” notes; neither is what we might regard as an “accidentalized” form of the other.

For the composition of what he calls *canto de organo*, i.e. polyphonic mensural music (as contrasted with *canto llano*, plainsong, or unmeasured music), Bermudo also permits what he calls “accidental” modes, or transpositions of the “natural modes” to other pitch-levels. For these modes one or more of what he calls *divisiones de tono*—“tone-divisions”—are required; namely e-flat, f-sharp, c-sharp and g-sharp, and sometimes even d-sharp and a-flat.

An additional intonation problem is created by what he says is a new gender then in use, in addition to the classical diatonic, chromatic and (lost Greek) enharmonic genders. This new gender, he says, is created by the very frequent occurrences of suspension cadences in which the note delayed by the suspension—which he calls the *sustentado*—is an upward-resolving leading tone, which must therefore be pitched to *mi* and the note to which it ascends to *fa*. Bermudo calls this new gender, expressed by many leading-tone cadences on notes other than the *final*, or keynote, of the mode, the “semichromatic” gender.

With the advantage we possess of historical hindsight we can

see that this semichromatic gender constitutes an early factor in the eventual breakdown of the modal system and its supersedence by major-minor tonality.

Let us now examine how these concepts employed in sixteenth-century musical composition affect the locations of the frets.

The vihuela has ten frets, each successive fret a semitone higher than the preceding one. The saddle being considered as Fret 0 (or zero), the others are numbered from 1 to 10 with Arabic numbers.

If a string is tuned to G, the numbers which correspond to the natural letters G A B C D E F are respectively 0 2 4 5 7 9 and 10. The semitones B C and E F are therefore both *mi-fa* rising semitones. Furthermore, according to Bermudo, they are minor semitones—smaller in size than major semitones. For him, the major semitone is a chromatic semitone, such as from C to C-sharp. Since these two semitone sizes differ by an easily perceptible comma—about one-ninth of a tone—the presence of the latter among the frets constitutes a substantial problem in intonation.

Inasmuch as no fret can sound, in “just” (natural) intonation, both *mi* and *fa*, this affects the pitch-relations between strings. If two strings are tuned a major third apart—(e. g. C and E) then the notes E-F are *mi-fa*, and Fret 1, used for the F, is at *fa* pitch. But if, on the C-string, a leading-tone C-sharp, to D, is needed, this C-sharp must have *mi* pitch at this same Fret 1; which is impossible.

Impossible, that is, if both these pitches are required in the same piece. If they are in two different compositions an expedient can be resorted to, which Bermudo describes. He suggests that the player mark these two locations for the first fret on the finger-board. Then, if the fret is in *mi*-location for one piece, and the player is called upon to play a piece in which it must be in *fa*-location, he merely shifts the fret back the tiny distance needed to put it in *fa*-location, and conversely.

Elsewhere, however, in this same section of his book, Bermudo disparages this procedure, saying, in effect, that once one starts moving the frets around one will end up with everything out of tune. Being—as one discovers in this fascinating book—a hard-selling hawker of his own ideas, Bermudo may be, by this comment, “softening up” the reader into a state of acceptance of his own new method of fret tuning, which he presents later.

Before considering Bermudo's tuning methods it will be useful to examine two¹ earlier ones: the method presented in Hans Gerle's *Musica teusch* (Nuremberg, 1532) and the one presented in the second part of Silvestro Ganassi's *Regola Rubertina* (Venice, 1543).

All three of the authors considered here make their measurements in terms of aliquot “portions” of the total vibrating length of an open string; thus they are not limited to any particular system of measure units (i.e. it makes no difference whether one uses inches or centimeters, but the latter is much easier to employ). We shall represent this string length by the letter S and identify frets by their appropriate number preceded by the letter F. Thus the expression $F5 = S/4$ means that the distance from the saddle to the fourth fret is equal to one-fourth the vibrating length of the string (the distance from saddle to bridge).

Since $S/4$ produces a just perfect fourth above the pitch of the open string, and since all four of the methods presented here use this formula for F5 (and also $S/2$ for F12, the octave above the open string), none of these methods offer approaches to either mean-tone or equal temperaments, although Bermudo's Second Method shows his inclination toward the latter. This statement is further confirmed by the fact that in all four methods where strings are tuned a perfect fourth apart the intonation of this interval is always just (i.e. in the frequency ratio of 4:3). A computation for fret locations in equal temperament would be based upon an exponential curve determined by the methods of the calculus, which was not discovered until the 17th century, hence such a procedure was not available to the three authors mentioned.

Two other fret locations are the same in Gerle, Ganassi and Bermudo I: $F2 = S/9$ and $F7 = S/3$, respectively a just major tone and a just perfect fifth above the open string. For all the rest of the frets these authors present differing measurements.

Both Gerle and Ganassi exhibit some diffidence about boring their readers with complex mathematics, but where it is possible to associate a tuning with one of the well-known proportions preceded by the Latin prefix *sesqui*—meaning that the numerator is one more than the denominator—they slip these scholarly terms in, perhaps to impress the reader with their own learning. These two earlier authors differ from each other in one interesting respect: Ganassi insists repeatedly that every location must be adjusted by “a little

¹Martin Agricola does not discuss fret measurement in the first edition of his *Musica instrumentalis deutsch* (Wittenberg: Georg Rhaw, 1529). In a later edition (1545), however, Agricola does include a brief section on the subject. For F2, F3 and F5 his results are the same as in Bermudo I. But for F1 he uses the formula $13S/256$ (see bottom of third chart for other quantities).

more or a little less" until the ear is satisfied; Gerle never mentions such testing directly, but when he vaguely locates the fourth fret midway between the third and the fifth frets, and the sixth midway between the fifth and the seventh, the sixth being "a little closer to the seventh than to the fifth"—one may assume that "midway" means halfway musically rather than linearly, hence ultimately determined by ear.

If we compare certain critical fret distances given by these three authors—namely F1, F3 and F4—by comparing the coefficients of S reduced to three decimal places, we shall see that Ganassi's F1 is much flatter than the others'; that Gerle's and Bermudo's I differ only in the third place; but that Bermudo II lies between Ganassi's and Gerle's, i.e. much lower than Bermudo I. Ganassi's F3 is the sharpest, but is only slightly sharper than Gerle's. Bermudo's F3 is the same for both of his procedures and is substantially lower than the F3's of his predecessors. Ganassi's F4 is a just major third above the open string. Gerle gives no precise figure for this fret. Bermudo's First Method gives a very sharp Pythagorean major third, the sum of two major tones, and a syntonic comma (81:80) larger than a just third, for F4. Bermudo comments on this sharpness in presenting his Second Method and, to arrive at his new tempered F4, subtracts one-third of this comma from the Pythagorean third. Then, to obviate having too small a major second between F2 and his new F4, he also subtracts one-half of a comma from the Pythagorean major-tone F2: an amount so small that it shows up in our table only in the third decimal place (.106+ or .110– as compared with the just .111+).

Bermudo also goes beyond his predecessors in presenting dimensions for the chromatic frets F6 and F8, which both Gerle and Ganassi leave unfixed. But Bermudo's two methods present differing values for these two frets. For F6 the difference is relatively slight: .297+ vs. .290–; for F8 the difference is somewhat larger: .376– vs. .367–. It is on these chromatic frets, of course, that Bermudo is attempting to give, by his Second Method, compromise pitches that will make them acceptable as either *mi* or *fa* for what he calls the "semichromatic" gender and also for the "accidental" or transposed modes, used in accompanying voices when singing in the "natural" modes would pitch them too high or too low.

The four values for F1, expressed by their decimal coefficients² of S, are as follows: Gerle, .061–; Ganassi, .042–; Bermudo I, .064–; Bermudo II, .052+. The last one gives some credence to Bermudo's claim of the possibility of *mi* and *fa* at the same fret through being

sharper than Ganassi's low *fa* value and also flatter than Gerle's and his own previous *mi* value. Agricola's .051+ is obviously very close to Bermudo II.

Bermudo's Second Method of locating F6 (fol. cix-b) is the most complex and the most laborious to work out:

Take a sesquioctave [i.e. a 9:8 ratio, here 1/9] from the 4th fret to [letter] 1 [his mark for the bridge], and where the aforementioned sesquioctave reaches, make a mark. Then divide from [letter] 1 to the 2nd fret into five portions, and where four of them reach [i.e. from the bridge] you will find [another] mark, and it will be a little ahead from the sesquioctave [i.e. from the first mark] toward the saddle. Let the distance [between] the two marks be divided into three parts; the 6th [fret] will be at the first [third] near[est] the 7th fret. [Additions and elucidations in brackets are mine. G.J.K.]

If this procedure is stated algebraically in terms of S, it reads as shown in note † of the page of fret formulas for Bermudo II, given below. There it will be seen that by substituting for F2 and F4 the values worked out for them from Bermudo's previous directions, and by going through the long and very tedious process of computing common denominators and combining the various addends, we arrive at 47,413/164,025 as the coefficient² of S for the sixth fret, from which we are at last enabled to find the coefficient for the first fret, another large fraction: 25,627/492,025. All of these operations and results will be found on the accompanying charts.

In order to use this chart to locate a given fret on your instrument do as follows:

1. Measure carefully the distance from saddle to bridge. This will be the value of S for your instrument.
2. For any given fret (having first decided which of these four methods you wish to try out—do not mix them!), multiply the value of S for your instrument by the corresponding fractional coefficient of S in the chart, or—which is much simpler—use instead the decimal approximation of this coefficient.

Example. Suppose you have a bass viol on which the value of S turns out to be 64cm. To locate the seventh fret by Bermudo's

²Each coefficient, whether expressed as a fraction or its approximation to a more convenient decimal, is the number by which the value of S is multiplied to obtain the measurement of the corresponding fret from the saddle.

Second method, multiply 64 by the decimal .330 and you will get 21.12cm, the distance of the 7th fret from the saddle.

All of the dimensions found in these charts were tested on the writer's Dolmetsch bass viola da gamba of division size, for which the value of S is 66cm. Conversions in terms of this value for S are provided in the accompanying charts for the benefit of viol players who may possess an instrument of this size. For instruments of different sizes one can make one's own column of measurements by the method of the example given above.

What of the relative musical values of these four methods? Is Bermudo's Second Method the answer to our problems? This is something each player must decide for himself. The present writer finds that the intonation of the seventh fret in Bermudo II is unacceptable, for the following reasons: if two strings are tuned a just perfect fourth apart—as all four of these methods presuppose—the pitch at the seventh fret on the upper string, which should make a perfect octave with the string below, will be found perceptibly flat. If this octave is "trued" by lowering the lower string to suit it, the unison at the fifth fret of the lower string with the open string above it will be found to be false. Since this octave and unison are crucially necessary in viol playing, any falsity in them would appear to be unacceptable. We must remember, however, that Bermudo was thinking of the *vihuela de mano*, a plucked instrument, the sound of which tends to die away very quickly. On such an instrument these slight falsities would be far less apparent, hence more tolerable, than on a bowed instrument on which they would be far more perceptible.

What, then, should we do in playing on the viol those highly chromatic passages in the Fantasies of Purcell and Jenkins, not to mention the enharmonic modulations in Marais's remarkable piece, *Le Labyrinth*? Arnold Schlick, in *Der Spiegel der Orgelmacher* (1511), gives us a hint when he suggests that on chromatic notes of unsatisfactory pitch on the organ one should hide the fault by playing an ornament on it. It may not be for the sake of expression alone that Jean Rousseau, in his treatise on the viol (1687), and Hotteterre le Romain, in the foreword to his first book of flute pieces (1715), both recommend the use of vibrato on long notes.

Sources

All the material relative to Ganassi, Gerle and Bermudo was taken from the writer's translations from facsimile editions or photocopies of the original, as follows:

Bermudo, (Fray) Juan. *Declaración de Instrumentos musicales* (Ossuna: Juan de Leon, 1555). Facsimile edition edited by Macario Santiago Kastner (Kassel und Basel: Barenreiter-Verlag, 1958).

Ganassi, Silvestro. *Letitione seconda pvr della prattica di sonare il violone d'arco da tasti . . .* (Venice, 1543). Xerox copy of original in the Library of Congress. This work is Part II of the author's *Regola Rubertina* (Venice, 1542), both parts published by the author.

Gerle, Hans. *Musica Teusch/ auf die Instrument der grossen vnnd kleinen Geygen . . .* (Nuremberg: Jeronimum Formschneyder, 1532). Xerox from microfilm of copy in the British Museum.

Fret Formulas

Bermudo, Method I (fol. ciii-a)

S = vibrating length of string

Fret	Formula	Decimal	S = 66cm
1	$\frac{217S}{729} - \frac{1}{3}(S - \frac{217S}{729}) = \frac{139S}{2187}$	.064 -	4.20 -
2	$\frac{S}{9}$	.111 +	7.33 +
3	$\frac{S}{4} - \frac{1}{8}(S - \frac{S}{4}) = \frac{5S}{32}$	.156 +	10.31 +
4	$\frac{S}{9} + \frac{1}{9}(S - \frac{S}{9}) = \frac{17S}{81}$	.210 -	13.85
5	$\frac{S}{4}$	.250	16.50
6	$\frac{17S}{81} + \frac{1}{9}(S - \frac{17S}{81}) = \frac{217S}{729}$	.297 +	19.60 +
7	$\frac{S}{3}$	.333 +	22.00
8	$\frac{217S}{729} + (S - \frac{217S}{729}) = \frac{2465S}{6561}$	.376 -	24.80 -
9	$\frac{S}{9} + \frac{1}{3}(S - \frac{S}{9}) = \frac{11S}{27}$	.407 +	26.86 +
10	$\frac{S}{4} + \frac{1}{4}(S - \frac{S}{4}) = \frac{7S}{16}$	.437 +	28.87 +
12	$\frac{S}{2}$	.500	33.00
13	$\frac{S}{2} + \frac{1}{2}(\frac{139S}{2187}) = \frac{2326S}{4374}$	.531 +	35.05 -
14	$\frac{S}{2} + \frac{1}{2}(\frac{S}{9}) = \frac{5S}{9}$	.556 -	36.70 -

Although the *vihuela de mano* has only ten frets, Bermudo also gives formulas for the imaginary frets Nos. 13 and 14 to demonstrate how the measuring process could be continued. I have also included here the formula for Fret 12, at the midpoint of the string, which Bermudo uses with that for Fret 1 to get a halfstep, and with that for Fret 2 to get a wholestep, above the octave. Also, because some viol players prefer to add this fret to the normal seven.

Fret Formulas

Bermudo, Method II (fol. cix-b).

S = vibrating length of string

Fret	Formula	Decimals	S = 66 cm
1	$\frac{47,413S}{164,025} - \frac{1}{3}(S - \frac{47,413S}{164,025}) = \frac{25,627S}{492,075}$	.052 +	3.43 +
2	$\frac{S}{9} - \frac{1}{2}[\frac{S}{9} - \frac{1}{8}(S - \frac{247S}{1215})] = \frac{389S}{3645}$	.106 +	7.00 -
3	$\frac{S}{4} - \frac{1}{8}(S - \frac{S}{4}) = \frac{5S}{32}$ $\frac{7S}{16} - \frac{1}{2}(S - \frac{7S}{16}) = \frac{5S}{32}$	.156 +	10.31 +
*4	$\frac{S}{5} + \frac{1}{3}(\frac{4S}{405}) = \frac{247S}{1215}$	.202 +	13.33 +
5	$\frac{S}{4}$	.250	16.50
†6	$\frac{S}{5}(\frac{5201}{3 \times 1215}) + \frac{2S}{45}(\frac{352}{3 \times 1215}) = \frac{47,413S}{164,025}$	.290 -	19.21 -
7	$\frac{389S}{3645} + \frac{1}{4}(S - \frac{389S}{3645}) = \frac{401S}{1215}$	.330 +	21.78
8	$\frac{5S}{32} + \frac{1}{4}(S - \frac{5S}{32}) = \frac{47S}{128}$	.367 +	24.22 +
9	$\frac{247S}{1215} + \frac{1}{4}(S - \frac{247S}{1215}) = \frac{163S}{405}$	.402 +	26.53 +
10	$\frac{S}{4} + \frac{1}{4}(S - \frac{S}{4}) = \frac{7S}{16}$	.437 +	28.87 +
12	$\frac{S}{2}$	.500	33.00

*The comma Bermudo uses here is: $[\frac{S}{9} + \frac{1}{9}(S - \frac{S}{9})] - \frac{S}{5} = \frac{4S}{405}$

† The full mathematical expression of Bermudo's directions for Fret 6 is:

$$\frac{1}{5}(S - F2) + F2 + \frac{2}{3} \left\{ \left[\frac{1}{9}(S - F4) + F4 \right] - \left[\frac{1}{5}(S - F2) + F2 \right] \right\}$$

Substituting the corresponding values for F2 and F4 in this expression gives:

$$\frac{1}{5}(S - \frac{389S}{3 \times 1215}) + \frac{389S}{3 \times 1215} + \frac{2}{3} \left\{ \left[\frac{1}{9}(S - \frac{247S}{1215}) + \frac{247S}{1215} \right] - \left[\frac{1}{5}(S - \frac{389S}{3 \times 1215}) + \frac{389S}{3 \times 1215} \right] \right\},$$

which reduces to the expression for F6 given in the table above.

Fret Formulas

HANS GERLE (1532)

SILVESTRO GANASSI (1543)

Fret	Formula	Decimal	S = 66cm	Formula	Decimal	S = 66cm
1	$\frac{2S}{33}$	.061-	4.03-	$\frac{S}{25}$ or $\frac{S}{16}$	.040, or .063-	2.64, or 4.16-
2	$\frac{S}{9}$	.111+	7.33+	$\frac{S}{9}$	.111+	7.33+
3	$\frac{16S}{99}$	.162-	10.69+	$\frac{S}{3}$	.167-	11.02+
4	approx.*	-	-	$\frac{S}{5}$	.200	13.20
5	$\frac{S}{4}$	.250	16.50	$\frac{S}{4}$	.250	16.50
6	approx.	-	-	approx.	-	-
7	$\frac{S}{3}$	.333+	22.00	$\frac{S}{3}$	.333+	22.00
8	approx.	-	-	approx.	-	-

*The frets marked "approx." (approximately) were set first midway between their neighbors, then moved "a little more, or a little less" distant from the saddle until the ear was satisfied.

Comparative summary of measurements for S = 66 cm.

Fret	Gerle	Ganassi	Bermudo I	Bermudo II
1	4.03 -	2.64 or 4.16	4.20 -	3.43+
2	7.33+	7.33+	7.33+	7.00 -
3	10.69+	11.02+	10.31+	10.31+
4	-	13.20	13.85	13.33+
5	16.50	16.50	16.50	16.50
6	-	-	19.60+	19.21-
7	22.00	22.00	22.00	21.78
8	-	-	24.80-	24.22+
12	33.00	33.00	33.00	33.00

AGRICOLA (1545), for Frets 2, 3, 5, gives the same formulas and results as Bermudo I. For Fret 1, however, his formula is $\frac{13S}{256}$, which yields the decimal coefficient .051- and for S = 66cm, 3.37 cm.

Captain Hume's "Invention For Two To Play Upon One Viole" *

Karl Neumann

In the brilliant circle of late Elizabethan and Jacobean composers Captain Tobias Hume ranks only as a minor figure. Historians speak of him with a certain condescension, and the various unmistakable symptoms of a mental disorder that was ultimately to engulf him in total insanity have not helped to raise his historical status. Gustave Reese¹ describes him as a "rather eccentric composer (who) was nevertheless one of the greatest bass-viol players of his time." M.C. Boyd² calls him a composer "whose originality springs from eccentricity rather than from genius." Nigel Fortune³ discovers in his works "something of the extravagance that characterizes also his private life."

If Hume as a composer finds himself thus relegated to a secondary position, there is another side to his musical personality in which he easily takes his place among the best of his contemporaries. For there was hardly another musician of his generation who lavished so fanatical a devotion on the instrument of his choice as Hume did on his beloved viola da gamba, or, to use his own terms, the Viola de Gambo or Gambo Violl.

His devotion was partisan with a vengeance. It was his consuming ambition to establish the gamba in the public eye as an ideal medium for solo performance and to demonstrate its perfect artistic equality with the lute, the most fashionable solo instrument of the day. Consequently, when in 1605 he brought out his first collection of gamba pieces under a title of truly Gargantuan length beginning with the words *The First Part of Ayres, French, Polish, and others, etc.*⁴, he

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¹*Music in the Renaissance* (New York, 1954), p. 873 f.

²*Elizabethan Music and Musical Criticism*, 2d ed. (Philadelphia, 1962), p. 168.

³In MGG, vol. VI, col. 918.

⁴British Museum Ref: K. 2. g. 10. For the full title see MGG, vol. VI, col. 918.

prefaced it with a letter "To the understanding Reader," in which he declared: "And from henceforth, the stateful instrument *Gambo Violl*, shall with ease yeelde full various and devicefull Musicke as the Lute. For here I protest the Trinitie of Musicke, parts, Passion, and Division, to be as gracefully united in the Gambo Violl, as in the most received Instrument that is, which here with a Souldiers Resolution,⁵ I give up to the acceptance of al noble dispositions."

John Dowland, in *A Pilgrimes Solace* (1612), took strong exception to Hume's boast, deeming it an insult to the lute to be compared to the gamba.⁶ But in 1607 Hume, in his second publication, *Captaine Humes Poeticall Musicke*,⁷ had mounted an even stronger attack: "From henceforth the stateful *Gambo Violl*, shall with ease yeeld full various and devicefull Musicke as any other instrument."

Those were no idle words. For if the artistic eminence of the lute, as Hume saw it, consisted in its superior capacity a) to render "parts," i.e. to handle a polyphonic or chordal texture, b) to express "Passion," adopting the then novel Italian "espressivo" style designed to "move the affections and passions," and furthermore c) to play "Divisions," then Hume was ready to prove by his printed gamba compositions—and undoubtedly he did the same *viva voce*, by the example of his own gamba playing—that his instrument could successfully rival the lute with regard to all three criteria.

Of Hume's "defence of the Viol da Gamba," as John Dowland termed the former's printed efforts, the most interesting and historically most fruitful aspect is to be found in his bold experiments with "parts," that is with chordal and semi-polyphonic techniques and textures. Hume was breaking new ground as he conceived of a grand and expressive style of gamba playing richly studded with four-, five-, and six-part chords, suggesting the rendering of an ornate melodic line, self-accompanied by a chordal background.

Nor was Hume remiss in vindicating in his "lessons" the artistic fitness of the gamba for the remainder of the "Trinitie of Musicke" (as he called it), namely for "Divisions" and "Passion." Example I,

⁵This is a pun on the title of No. 11 of the collection, "A Souldiers Resolution."

⁶Boyd, *op. cit.*, p. 141.

⁷In the collection of the Henry Watson Library, Manchester.

presenting the last section of "A Humorous Pavane" (No. 43 of his first publication, of 1605), shows Hume's adaptation of the division technique to the gamba.

Example I

Hume, "A Humorous Pavane"



As for "Passion," Hume's attempts at grafting the new "espressivo" manner on the traditional staid and straightforward gamba style are clearly seen in the explicit playing directions he found it necessary to incorporate into some of his musical texts (here again pioneering in a new musical area, that of expression marks). A case in point is the pavane "Death," (No. 12 of his first collection), where an alternation of "espressivo" and "straight" playing is called for by the indications "play this pathenat [sic!] after every straine" and "play this as it stands."

But there remained much more for Hume to do; he had after all not only defied the lute, but had held out a general challenge to "any other instrument." So we see him next make a bold foray into a region until then the almost exclusive property of the virginal—that of programmatic and descriptive music. We find him, in fact, in the opening piece of his first collection, "The Souldiers Song," in the midst of a furious musical battle, giving explicit instructions to the gamba player to imitate now "The great Ordenance," now the "Kettle Drumme," and finally the "Trumpets." He soon follows this up (in No. 11, "A Souldiers Resolution") with another martial piece displaying very similar imitative sound effects.

That battles and other martial subjects held a special attraction for Hume must not surprise us in a man who felt himself half soldier and half musician. "My Life," he says in the dedicatory epistle to his first publication, "hath beene a Souldier, and my idleness addicted

to Musicke"; and he refers again to his dual allegiance in the already mentioned letter "To the understanding Reader" with the words: "My Profession being, as my Education hath beene, Armes, the onely effeminate part of me hath beene Musicke."

But we shall leave here the topic of Hume's fascination with musical battles and turn instead to the oddest, most unexpected step he took in order to prove the gamba equal, at least potentially, to "any other instrument." This time he staked out claims in a field from which common sense should have advised him that the gamba appeared *a priori*, by obvious technical laws, excluded. Hume was struck by the fact that virginalists of the later 16th century had for the first time successfully experimented with what was later to be called a keyboard duet. It is generally thought that a source in the British Museum (Add. MS 29.996, fol. 196 and fol. 204b) contains the two very first examples of that new manner, one by Nicholas Carleton, entitled *A Verse for Two to Play on One Virginal or Organ*, the other by Thomas Tomkins, called *A Fancy for Two to Play*.⁸

This was all the cue Hume required. In the closing words of the long-winded title to his first publication he made his countermove by announcing that the collection included "Also an Invention for two to play upon one Viole" (note the close imitation of Nicholas Carleton's title). The extra-large print of that announcement and its placement in the center of the title-page are clear indications of the value Hume was setting on his "invention," whether for its supposed artistic merits or for the added luster it was meant to shed on the gamba. But it will soon appear that an ulterior motive totally at variance with both of those artistic considerations was perhaps the determining factor for the particular shape Hume's "invention" was to assume.

The "invention" itself is exhibited in No. III of the collection, in a piece called "The Princes Almayne"; the uniqueness of Hume's scheme and the new light it promises to shed on his eccentric personality are good reasons for examining the "invention" more closely.

To begin with, is Hume to be taken seriously in the matter of his "invention" or is he indulging in that favorite Elizabethan pastime of "fooling?" An examination of the "Almayne" bears out his

⁸See Hugh M. Miller, "The Earliest Keyboard Duets," *The Musical Quarterly* XXIX (1943), pp. 438-457.

We turn now to examining the musical text of “The Princes Almayne.” The piece is printed in tablature, based on a special

The first player starts here in a high position—the fourth—of the topmost string, while the second player, engaged in a more robust, chordal style of playing, is placed in the first, or alternatively the “half” position of the lower and middle strings—the fifth, fourth, third, and intermittently also the second. In the sequel Hume keeps shifting the dispositions of the players’ hands and bows or exchanging their parts, always however with a careful view to keeping the hands and bows spatially separated.

How narrow his available base of operation and how skillfully in consequence he has to devise his strategy so as to avoid a collision of either hands or bows can be seen from such instances as the ones marked with asterisks in Example 2. In the first one, the left hands draw fairly close to each other, but Hume has eased the situation by assigning only open strings to the second player. Even more constricted is the playing disposition in the second instance, which shows the hands of the players in the first and “half” position respectively, that is at the distance of a single fret. Yet even here the second player has only once to insert a single finger—the second; the rest is for him straight open-string playing.

How are the two partners to be seated in order to perform smoothly the many simultaneous changes of positions and of bow-placements? It has been shown above that the part-notation requires them to face the same direction, which excludes the purely theoretical—or facetious—possibility of having one player sit behind the gamba, in the traditional “dorsal” position, and the other stand opposite and handle the instrument from in front. In any practical test both players will have to be at the back of the instrument.

And here, precisely, is the point where the wily Captain’s “Musical Humor” shows its true colors. For with both players seated at the back of the instrument, there is only *one* possible seating disposition that would allow the four playing hands the necessary (more or less) unobstructed access to fingerboard and strings. This disposition requires that one of the players—the smaller one and the one with shorter arms—seats himself (or we should at this point rather say: *herself*) on the lap of her musical partner, whose arms will then reach towards fingerboard and strings, according to the momentary exigencies of the situation, now around the shoulders, now the arms, now the waist of the other player.

At closer inspection Hume’s “invention” stands thus revealed as a prank—a unique example of a musical amphibology. For it is at one and the same time a legitimate musical creation coping successfully

with an exceedingly restrictive set of spacial conditions and also the “humorous” translation into the terms of a wag and rake of Shakespeare’s ideal of “the true concord of well-tuned sounds, By unions married.”

Tobias Hume: The Princess Almagne

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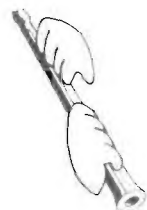
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